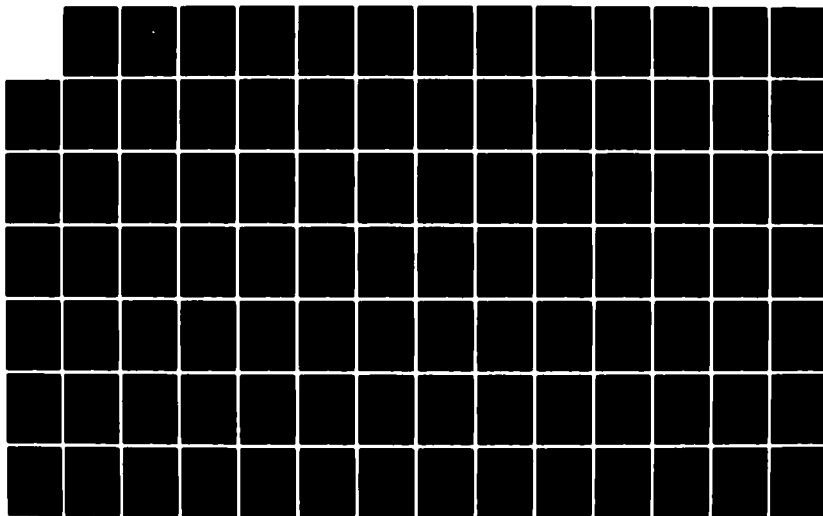


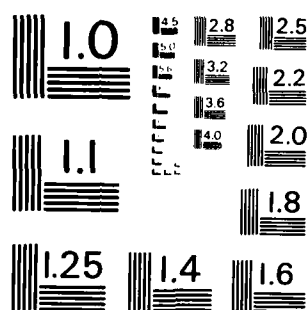
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# NAVAL POSTGRADUATE SCHOOL

Monterey, California



## THESIS

AN EMPIRICAL ANALYSIS OF THE DECISION TO  
ENTER MILITARY SERVICE BASED ON  
AGE AT SERVICE ENTRY

by

Ronald W. Stanley

June 1983

Thesis Advisor:

G. W. Thomas

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An Empirical Analysis of the Decision to Enter Military  
Service Based on Age at Service Entry

by

Ronald W. Stanley  
Captain, United States Army  
B.S., University of Arizona, 1973

Submitted in partial fulfillment of the  
requirements for the degree of

MASTER OF SCIENCE IN OPERATIONS RESEARCH

from the

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### ABSTRACT

This study investigates the relationship of entry age to various data concerning enlistees' individual characteristics and family background, educational background, civilian labor force experience, recruiting process, and enlistment characteristics and perceptions. Data collected in the 1979 Department of Defense Survey of Personnel Entering Military Service were stratified into nine age cohorts according to age at entry into active military service and examined primarily using the technique of multiple classification analysis.

Analysis indicated that recruitment of a larger percentage of older age individuals should significantly improve the quality of enlistees. Analysis also revealed entry age relationships that could impact on personnel costs and recruiting programs.

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## I. INTRODUCTION

### A. BACKGROUND

The military branches of service access individuals between the ages of 17 and 35, inclusive. Traditionally, however, the military has relied upon very young enlistees to provide the quantity of manpower necessary to perform its missions. As Table 1 [Ref. 1: p. 12; Ref. 2: p. 119] illustrates, for example, individuals 17 through 21 years of age have accounted for 85 percent or more of the military non-prior service accessions during the All Volunteer Force years. Table 1 further illustrates that the percent of non-prior service accessions 22 years of age and older has increased monotonically during the All Volunteer Force era.

As indicated in Figure 1 [Ref. 1: p. 2], the number of U.S. males who are 17 through 21 years old is projected to decrease over the next decade. With current limitations on female accessions and no plans for a reduction in military manpower levels, there appears to be a significant potential for a shortfall of enlistees. If a shortfall were to occur, its occurrence and size would be functions of various factors besides population that are generally considered to impact upon the supply of enlisted personnel, including recruiting and advertising efforts, economic conditions, relative pay, taste for military service, youth employment programs, and other factors.



TABLE 1  
PERCENT OF MILITARY NON-PRIOR SERVICE ACCESSIONS  
22 YEARS OF AGE AND OLDER

<u>Fiscal Year</u>	<u>Percent</u>
81	15.2
80	14.3
79	13.4
78	13.1
77	12.4
76	11.8
75	11.0
74	8.8

FIGURE 1  
U.S. MALE POPULATION AGES 17 TO 21

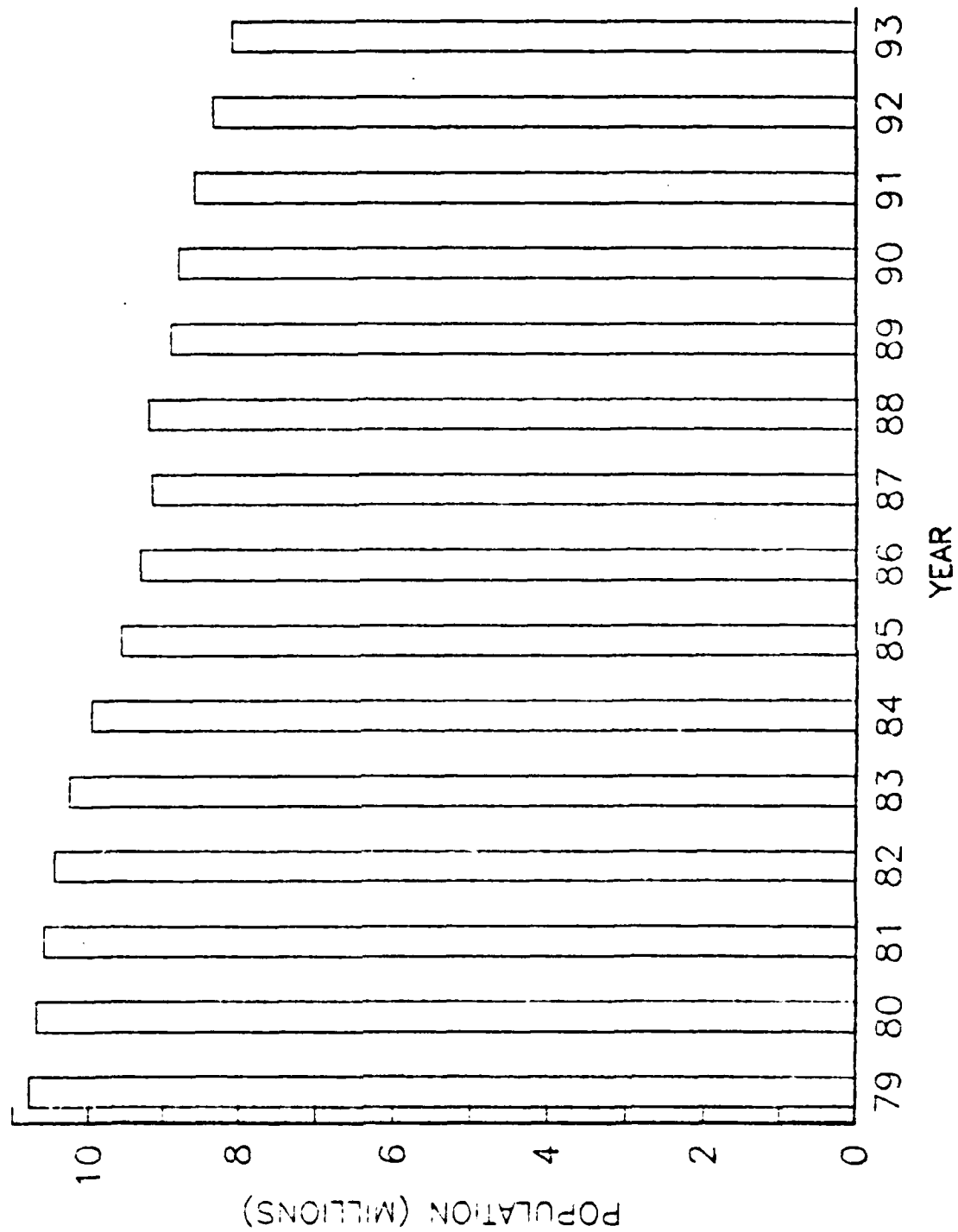


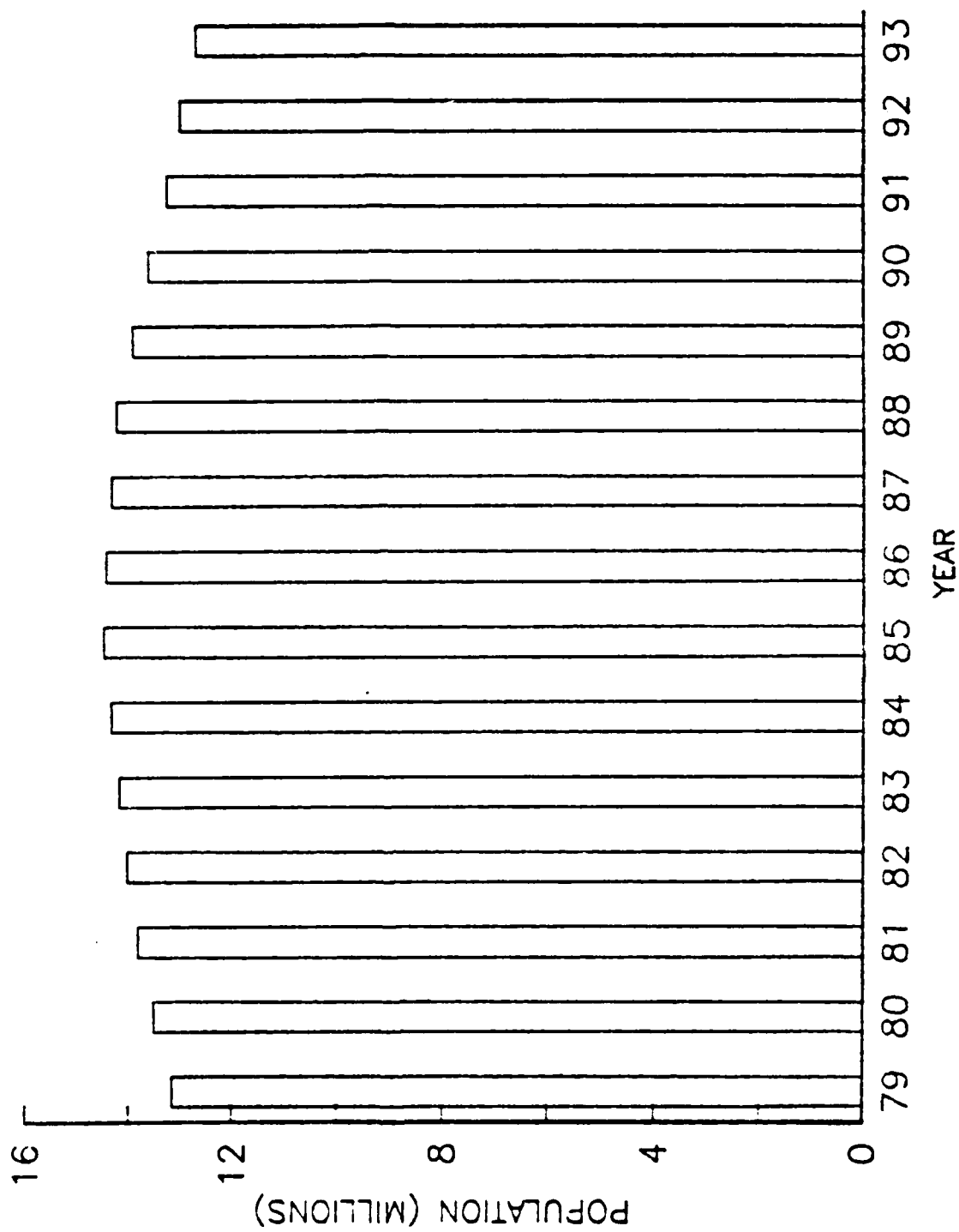
Figure 2 [Ref. 1: p. 3] indicates the projected number of U.S. males over the next decade who are 23 through 29 years of age. Clearly one way to minimize the possibility of a shortfall is to expand the supply of enlisted personnel by continuing the previously noted trend of accessing increasing proportions of personnel over 21 years old.

In addition to quantity, the quality of future enlistees is potentially a problem. The introduction of numerous sophisticated weapons systems requires high quality personnel to operate and maintain the weapons systems. One previous study indicated that older age enlistees may be better suited to fulfill the increasingly technical emphasis to be placed on future military manpower requirements [Ref. 2]. Specifically, it found that "active recruitment of individuals past the age of twenty may improve the aggregate quality of recruits based on several behavioral indicators such as education...and attitudes toward military life" [Ref. 2: pp. 115-116].

In summary, it is possible that recruiting larger numbers of older individuals may provide a basis for overcoming both the potential quantity and quality limitations associated with the future supply of young males.

This study will investigate the relationship of entry age to various data concerning enlistees' individual characteristics and family background, educational background, civilian labor force experience, recruiting process, and enlistment

FIGURE 2  
U.S. MALE POPULATION AGES 23 TO 29



characteristics and perceptions. All of the data were collected in the 1979 Department of Defense Survey of Personnel Entering Military Service. In particular, indicators of quality (for example, education) will be examined in an effort to substantiate relatively limited evidence of higher quality among older enlistees. Other data will be analyzed to determine entry age relationships that might impact on manpower policy (for example, marital status). Since current enlistment supply forecasting models generally ignore the entry age of enlistees, greater understanding of the relationship of age at entry to certain aspects of the backgrounds, experiences, and perceptions of enlistees may also prove useful in improving the accuracy of supply predictions.

This chapter ends with a discussion of the data base and methodology used in investigating the effects of entry age. The following chapter contains findings about the relationship of entry age to survey data, divided into sections on enlistees' individual characteristics and family background, educational background, civilian labor force experience, recruiting process, and enlistment characteristics and perceptions. The final chapter briefly summarizes this study.

#### B. DATA BASE

The 1979 Department of Defense Survey of Personnel Entering Military Service was administered to enlistees

in the Armed Forces following execution of the enlistment contracts at Armed Forces Entrance Examination Stations (AFEES). Enlistees were survey eligible if they had no prior military service and enlisted in the active Army, Navy, Air Force, or Marine Corps, either by entering active duty directly or by delaying active duty for periods of up to one year through the Delayed Entry Program.

Often referred to as the AFEES Survey, the survey was one of several related data collection programs of the Rand Corporation under sponsorship of the Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics). Its purpose was to provide data that could be used in research and policy formulation concerning manpower issues within the Department of Defense. Most of the information collected in the AFEES Survey related either to the enlistment decision process or to the characteristics and pre-enlistment experiences of the respondent.

In order to account for possible differences among individuals who enlisted at different times of the year, the AFEES Survey was administered in two phases six months apart. The first phase (Wave 1) was conducted in March and April of 1979, and the second phase (Wave 2) was conducted in September and October of 1979. Due to the large number of questions asked, two survey forms were administered during each phase.

Form 1 (Wave 1) and Form 3 (Wave 2) emphasized the enlistment process. Form 2 (Wave 1) and Form 4 (Wave 2) emphasized

possible predictors of attrition and issues related to women. Minor design differences between like Wave 1 and Wave 2 questionnaires were the result of an attempt to broaden the data base by replacing a small number of questions in Wave 1 with new questions in Wave 2. Many questions were nonetheless common to all four forms.

Each of the four forms was structured in a similar manner. The following sections, although common to all four forms, did not necessarily consist entirely of the same questions:

- "Your Enlistment"
- "Facts About You"
- "Your Education"
- "Marriage and Children"
- "Working and Jobs"
- "Your Income and Expenses"
- "Your Decision to Enlist"

Form 2 and Form 4 had two additional sections:

- "Your Family"
- "What's Your Opinion?"

"Your Enlistment" contained basic questions about the respondent's enlistment contract. "Facts About You" requested personal information about the enlistee. "Your Education" included questions about the enlistee's educational attainment and performance. Information concerning the respondent's present marital and family status, as well as future plans, was collected in "Marriage and Children." "Working and Jobs" asked about the current labor force status and recent employment experiences of the respondent. "Your Income and

Expenses" concerned the enlistee's economic situation. In "Your Decision to Enlist," data about the respondent's enlistment decision-making process and sources of information were requested.

"Your Family" contained questions concerning the education, labor force experience, and economic situation of the respondent's family. "What's Your Opinion?" included a psychological assessment of the enlistee and questions about women's issues.

A complete listing of the questions used on each form of the AFEES Survey is found in the AFEES Survey user's manuals and codebooks [Refs. 3 and 4].

During each phase the AFEES Survey was to have been administered at all 67 AFEES stations over periods of 20 consecutive working days. All survey eligible individuals were to have completed a questionnaire chosen at random from among the two forms. Due to various operational problems, however, a completion rate of only approximately 56 percent (determined by matching completed questionnaires with AFEES accession records for all survey eligible individuals) was achieved. No analysis was conducted to investigate the possible existence of bias associated with the relatively low response rate.

Completed survey forms were forwarded by the AFEES concerned to the Defense Manpower Data Center (DMDC) for processing. After automated data files were prepared by an



optical scanning contractor, DMDC systematically processed the files.

Some enlistees were identified by DMDC as being potentially survey ineligible on the basis of their responses to an eligibility screening question. In most cases their responses were verified from AFEES accession records and the survey data were not included in the data base. In other cases their responses could not be verified. Survey data pertaining to these respondents, who constituted less than one percent of all respondents, remained in the data base for analysis.

Respondent error was discovered in the form of incomplete or missing responses, multiple responses, "out of range" responses, and data inconsistencies. Such discrepancies were resolved whenever possible. Otherwise, appropriate audit codes (for example, "missing") were assigned. A complete explanation of the methodology used by DMDC in processing the automated data files is given in the AFEES Survey user's manuals and codebooks [Ref. 3: pp. 16-28; Ref. 4: pp. 16-28].

The overall quality of the AFEES Survey data base, as measured by respondent error rates, was apparently satisfactory [Ref. 3: pp. 24-28; Ref. 4: pp. 24-28]. However, no attempt was made to eliminate from the data base that data supplied by a very small number of respondents who exhibited unusually high error rates.

In order to facilitate analysis of the survey data, DMDC prepared four Statistical Package for the Social Sciences (SPSS) system files from the automated data files, each

containing the data pertaining to one of the survey forms. These SPSS system files were transformed into SPSS<sup>X</sup> system files, which provided for integration of all of the survey data into a single SPSS<sup>X</sup> system file. Thus, the data base consisted of 30,324 completed questionnaires that required a total of 430 different responses, as indicated in Table 2.

TABLE 2  
AFEES SURVEY DATA BASE

<u>Survey Form</u>	<u>Number Completed</u>	<u>Responses Required</u>
1	7419	247
2	7332	284
3	7830	286
4	7743	284
(All)	30324	430

#### C. METHODOLOGY

Responses to AFEES Survey questions were analyzed primarily according to the respondent's age at entry into active military service. Since 85 percent of the respondents were entering an inactive duty status for periods of up to one year (through the Delayed Entry Program) rather than entering active duty, entry age was usually calculated on the basis of the respondent's expected entry to active duty.

The military services access individuals between the ages of 17 and 35, inclusive. Preliminary analysis of

responses to selected survey questions was conducted using various numbers and groupings of entry age cohorts. Although a general pattern of differences in survey responses between younger and older age respondents was often present, it was determined that a simple dichotomous younger/older partitioning of entry age could not be used to summarize adequately responses to the survey questions of interest due to the loss of detail. Other groupings of entry ages were similarly eliminated from consideration. Therefore, the following nine age at entry cohorts were selected: 17, 18, 19, 20, 21, 22, 23, 24, and 25 to 35 years. These cohorts provided for detailed yet understandable analysis of survey responses and sufficiently large sample sizes of respondents.

Differences in responses to AFEES Survey questions were exhibited on the basis of factors other than age at entry. In order to ascertain those differences associated primarily with entry age, it was necessary to control for the effects of other factors known or suspected to affect responses significantly. The method that was used to isolate differences due to entry age was multiple classification analysis [Ref. 5].

Multiple classification analysis is an analysis of variance technique by which the effects of various categories within a factor of interest (for example, age cohorts within age at entry) are assessed after adjusting for the effects of other factors. Three factors other than entry age--sex, race, and branch of service--frequently had an effect upon

responses to many of the AFEES Survey questions of interest and were therefore controlled in this manner. Two categories were used for sex (male and female), three for race (White, Black, and Hispanic), and four for branch of service (Army, Navy, Air Force, and Marine Corps). The Hispanic classification for race consisted of individuals of Puerto Rican, Mexican, Cuban, Latino, Chicano, and other Spanish origins. Respondents of other racial backgrounds, who constituted less than four percent of all respondents, were omitted from analysis.

In addition to controlling for the effects of sex, race, and branch of service, multiple classification analysis was used to determine the statistical level of significance of all four factors (entry age, sex, race, and branch of service) for those survey questions with approximately normal response frequency distributions (generally requiring 12 or more response categories). For a given response, the level of significance was computed using a statistical test based on the F distribution, which compares the ratio of the sample variance associated with a given factor to the total sample variance while accounting for the number of factor categories and the sample size. A low level of significance (generally less than .05) indicated that there was a significant difference between (means of) factor categories; a high level of significance indicated that any difference between (means of) factor categories may have been due to random effects, with a probability equal to the level of significance.

Summary tables for multiple classification analysis conducted on responses to AFEES Survey questions of interest are contained in Appendices A through E. The survey question being analyzed is referenced by the title of the table. "Sample Mean" indicates the mean response of all respondents in the units indicated in parentheses. "Variables" lists the factors entry age, sex, race, and branch of service, plus the categories within each factor. "Sample Size" reflects the number of survey responses analyzed by factor category. "Unadjusted Mean" indicates the gross mean response by category for the sex, race, and branch of service control factors; "Adjusted Mean" indicates the mean response by age cohort after controlling for the effects of sex, race, and branch of service.

For those survey questions with approximately normal response frequency distributions, "Level of Significance" reflects the statistical significance of each of the four factors, computed in a manner consistent with the mean displayed for that factor, whether adjusted or unadjusted. Specifically, it reflects the statistical significance for entry age after adjusting for the sex, race, and branch of service control factors, and it reflects the statistical significance for sex, race, and branch of service with no adjustment for other factors.

## II. FINDINGS

### A. INDIVIDUAL CHARACTERISTICS AND FAMILY BACKGROUND

#### 1. Age at Entry

Responses to Survey questions were analyzed primarily according to the respondent's age at entry into active military service and to a limited extent according to the respondent's sex, race, and branch of service. A discussion of the distribution of respondents by age at entry, and by age at entry by sex, race, and branch of service, follows.

Respondents ranged from 17 to 35 years of age at entry to active duty. Since 85 percent of the respondents were entering an inactive duty status for periods of up to one year (through the Delayed Entry Program) rather than entering active duty, entry age was usually calculated on the basis of the respondent's expected entry to active duty. The average entry age of all respondents was 19.37 years. The distribution of entry ages is contained in Table 3. The distribution of entry ages within age cohort 25 to 35 years is contained in Table A-1. The average age of respondents in this entry age cohort was 27.00 years.

The distribution of respondents by entry age and sex is contained in Table A-2. As entry age increased, the proportion of females increased monotonically from less than 14 percent of the 17 year olds to more than 40 percent of the 25 to 35 year olds. Overall, males comprised 78

TABLE 3  
ENTRY AGE

Sample Mean = 19.37 Years

<u>Entry Age</u>	<u>Number of Respondents</u>	<u>Percent of Total</u>
17	2996	13.9
18	7541	35.0
19	4193	19.5
20	2259	10.5
21	1331	6.2
22	1000	4.6
23	676	3.1
24	485	2.3
25-35	1046	4.9
Total	21527	100.0

percent of the respondents and females comprised 22 percent of the respondents.

Table A-3 contains the distribution of respondents by age at entry within three racial categories: White, Black, and Hispanic. As previously noted, respondents of other ethnic backgrounds were omitted from analysis due to sample size limitations. Of all respondents, 69 percent were White, 23 percent were Black, and eight percent were Hispanic. The racial composition of entry age cohorts 19 years through 25 to 35 years was relatively constant compared to the 17 and 18 year entry age cohorts. The proportion of White 17 and 18 year old enlistees was much higher than the proportion of White enlistees in other entry age cohorts, whereas the proportion of Black and Hispanic 17 and 18 year old enlistees was significantly lower than the proportion of Black and Hispanic enlistees in other entry age cohorts.

The distribution of respondents by entry age and branch of service is given in Table A-4. Personnel entered the Navy and the Marine Corps at younger ages than the Army and the Air Force. As entry age increased, the proportion of Air Force enlistees increased while the proportion of enlistees in the Marine Corps decreased. The proportion of Army and Navy enlistees remained roughly constant for entry age cohorts 18 years through 24 years. However, the proportion of 17 year olds who enlisted in the Army was less than the Army proportion for other entry



ages, and the proportion of 17 year olds who enlisted in the Navy exceeded the Navy proportion for other entry ages. This pattern reversed itself for 25 to 35 year olds: a higher proportion enlisted in the Army compared to the Army proportion for other entry ages, and a lower proportion enlisted in the Navy compared to the Navy proportion for other entry ages.

## 2. Other Individual Characteristics

The relationship of certain individual characteristics to entry age of personnel entering military service is summarized in Table 4. AFEES Survey data pertaining to the following items were analyzed: marital status; for married personnel only, years of marriage, number of children, and whether the spouse was on or planned to enter active duty; for single personnel only, whether engaged to be married; number of dependents; town or city of residence; share of expenses paid; savings; and physical condition. A discussion of the relationship of these individual characteristics to entry age follows.

The marital status of respondents is indicated in Table A-5. Eight percent of the respondents were married (not including separated individuals). The adjusted percent of married enlistees increased sharply with entry age, from two percent of the 17 and 18 year olds to 36 percent of the 25 to 35 year olds. Hispanics were more frequently married than Whites and Blacks. Personnel entering the Navy and Marine Corps were less often married than personnel entering the Army and Air Force.

TABLE 4

## INDIVIDUAL CHARACTERISTICS\*

TABLE	SAMPLE MEAN	17	18	19	20	21	22	23	24	25-35
A-5: Marital Status	8% Married	2	2	5	11	15	20	22	26	36
A-6: Married: Years of Marriage	1.64 Years	0.66	0.76	0.99	1.17	1.56	1.83	2.10	2.19	2.41
A-7: Married: Number of Children	0.75 Children	0.27	0.41	0.50	0.56	0.61	0.82	0.99	0.87	1.14
A-8: Married: Spouse On or Will Enter Active Duty	18% Positive	30	22	19	19	20	19	15	15	14
A-9: Not Married: Engaged	27% Positive	29	27	27	28	29	23	22	24	23
A-10: Number of Dependents	0.25 Dependents	0.11	0.11	0.17	0.26	0.36	0.46	0.57	0.61	0.95
A-11: Residence--Rural Town	21% Positive	22	23	22	20	18	17	18	20	14
A-11: Residence--Small City	33% Positive	33	35	32	31	34	30	33	25	30
A-11: Residence--Medium City	24% Positive	25	24	24	25	24	25	21	25	23
A-11: Residence--Large City	23% Positive	21	19	23	25	26	29	29	31	34
A-12: Share of Expenses Paid	67% Paid	49	56	69	79	83	84	86	87	89
A-13: Savings	\$309	223	288	314	334	286	330	433	381	492
A-14: Physical Condition	4.52 Condition	4.45	4.54	4.54	4.54	4.53	4.45	4.61	4.47	4.47

\* Adjusted for the effects of sex, race, and branch of service

Married enlistees had been married an average of 1.64 years (Table A-6) and had an average of 0.75 children (Table A-7). Adjusted years of marriage and number of children generally increased slightly relative to an increase in entry age. Males and Whites had not been married as long as their counterparts. Typical enlistees in the Navy and Marine Corps had been married for shorter periods of time than typical enlistees in the Army and Air Force. Whites had slightly fewer and Marine Corps enlistees far fewer children than their counterparts.

Table A-8 indicates that 18 percent of the spouses of married respondents were either on active duty or planned to enter active duty within one year. As entry age increased, the adjusted percent of spouses in or entering the military decreased moderately. Spouses of females were several times more likely to serve in the military than spouses of males. Spouses of Air Force and Marine Corps personnel were somewhat more likely to serve in the military than spouses of personnel entering the Army and Navy.

Table A-9 reflects that more than one fourth of the unmarried respondents were engaged to be married. The adjusted proportion of engaged personnel decreased slightly as entry age increased. Males were more often engaged than females. Whites were less likely to be engaged than Blacks or Hispanics.

Respondents (regardless of marital status) had an average of 0.25 dependents. The adjusted number of dependents

(Table A-10) increased monotonically with age at entry from 0.11 for 17 and 18 year olds to 0.95 for 25 to 35 year olds. Hispanics had more dependents than Blacks, who had more dependents than Whites. Enlistees in the Army and Air Force had more dependents than enlistees in the Navy and Marine Corps.

Table A-11 gives the adjusted entry age distribution of enlistees according to the size of their town or city of residence. The proportion of enlistees who lived in small (less than 50,000 population) and medium (50,000 to 100,000 population) size cities was fairly constant. Older individuals lived in large (more than 100,000 population) cities more often and in rural towns less often than younger individuals.

The average share of expenses paid by a respondent was about two-thirds. As contained in Table A-12, the adjusted share of expenses increased monotonically from almost one-half for 17 year olds to almost 90 percent for 25 to 35 year olds. Little difference existed on the basis of sex, race, and branch of service.

Table A-13 contains the average savings of enlistees. Adjusted for the effects of sex, race, and branch of service, average savings generally increased, from about \$225 for 17 year olds to close to \$500 for 25 to 35 year olds. Whites had almost twice the savings of Blacks and Hispanics.

The physical condition of respondents is contained in Table A-14. The adjusted physical condition was relatively constant by entry age. Only slight differences in physical condition were present on the basis of sex and race; the physical condition of respondents by branch of service was also fairly constant. A typical respondent considered himself to be in slightly above average to above average condition.

In summary, older respondents were much more often married than younger respondents. As entry age increased, respondents had been married slightly longer and had slightly more children. Younger respondents were somewhat more likely than older respondents to have spouses in or who planned to enter active military service. Many unmarried enlistees were engaged to be married, and the proportion of such enlistees decreased slightly as entry age increased. Older respondents had more dependents than younger respondents. The residence of older individuals was more often a large city and less often a rural town than the residence of younger individuals. Older enlistees paid a far greater share of their expenses than younger enlistees and also had larger amounts of savings. The physical condition of personnel entering military service was about the same for all entry ages.

### 3. Family Background

Analysis of responses to several survey questions concerning the respondent's family follows. Table 5

TABLE 5

## FAMILY BACKGROUND\*

TABLE	SAMPLE MEAN	17	18	19	20	21	22	23	24	25-35
A-15: Live with Parent(s) or Guardian(s)	65% Positive	77	75	66	59	55	44	41	36	29
A-16: Lived with Parent(s) at Age 14	95% Positive	95	96	95	95	94	95	96	96	94
A-17: Number of States/Countries Lived In	2.22 States/ Countries	2.19	2.12	2.20	2.17	2.31	2.42	2.41	2.41	2.74
A-18: Father Has Been on Active Duty	67% Positive	66	67	67	67	68	67	67	64	70
A-19: Number of Siblings	3.91 Siblings	3.98	3.86	3.99	3.89	3.94	4.02	3.81	3.94	3.67
A-20: Number of Siblings Who Have Been on Active Duty	0.51 Siblings	.53	.47	.49	.51	.53	.57	.54	.66	.67
A-21: Family Income	\$15808	15417	15621	15669	16160	16650	16329	16249	16267	16041
A-22: Family Income- Public Assistance	13% Positive	15	13	13	13	11	15	10	10	9
A-23: Father's Ed.	11.93 Years	11.74	11.91	11.97	12.05	12.10	11.91	11.79	11.95	12.18
A-24: Mother's Ed.	11.81 Years	11.74	11.79	11.80	11.93	11.91	11.73	11.85	11.94	11.80

\* Adjusted for the effects of sex, race, and branch of service

summarizes the relationship between age at entry and survey data pertaining to the following family matters: whether lived with parent(s) or guardian(s); whether lived with parent(s) at age 14; number of states/countries lived in; whether father has been on active duty; number of siblings; number of siblings who have been on active duty; family income; and whether any family income included public assistance. A discussion of the analysis of these items follows.

At the time of the survey, almost two-thirds of the respondents lived with one or both of their parents or guardians or with other relatives. As indicated in Table A-15, the adjusted percent of respondents living at home decreased greatly as entry age increased. Far lesser differences existed on the basis of sex, race, and branch of service. Females, Blacks, and personnel entering the Army lived at home slightly less than their counterparts.

At age 14, almost all (95 percent) of the respondents lived with one or both parents. Table A-16 reflects that the adjusted proportion of these respondents was essentially constant by age at entry and that there was little difference within the sex, race, and branch of service control variables. Many of the respondents lived with only one parent, normally their mother. At age 14 only 64 percent of the respondents lived with their father while 89 percent lived with their mother.

Table A-17 indicates that the adjusted number of states and countries lived in by older enlistees slightly

exceeded that for younger enlistees. Somewhat greater differences existed on the basis of race and branch of service. Whites had lived in more states and countries than Blacks and Hispanics. Within branch of service, Air Force personnel had lived in the most states and countries, while personnel entering the Marine Corps had lived in the least.

As noted in Table A-18, about two-thirds of the fathers of enlistees had been on active duty in the military. The adjusted proportion by age at entry cohort was roughly the same. Moderate differences existed within the branch of service control factor, with the fathers of enlistees in the Navy and Air Force having served in the military more often than the fathers of Army and Marine Corps enlistees. Great differences were present on the basis of race. Fathers of White respondents had been on active duty far more often than fathers of Black or Hispanic respondents.

The number of siblings of personnel entering military service is contained in Table A-19. The average number of siblings for all personnel was 3.91. The adjusted number of siblings varied somewhat by entry age cohort but with no particular pattern. Blacks and Hispanics had an average of over one sibling more than Whites. Personnel entering the Army had more siblings than personnel entering the other services.

An average of 0.51 of the siblings had been on active duty (Table A-20). The adjusted number of siblings who had



been on active duty showed a modest increasing trend with entry age. Females, Blacks, and personnel entering the Army had a moderately higher number of siblings who had been in the military than their counterparts, but this was not surprising since they also had more siblings than their counterparts.

The total annual income for 1978 of a typical respondent's family (that is, the respondent's parents and other family members living with them) was about \$15,800 (Table A-21). The adjusted mean family income was about \$500 to \$1000 lower for the families of 17, 18, and 19 year olds than for the families of other age at entry cohorts. Differences based on sex, race, and branch of service were also found. Families of male enlistees earned over \$1000 more than families of female enlistees. The total family income of Whites was far more--by over \$6000--than the total family income of Blacks and Hispanics. Families of enlistees in the Navy and Air Force also had high total income when compared to families of enlistees in the Army and Marine Corps.

Income from public assistance (welfare) was received by 13 percent of the respondents' families in 1978. The adjusted percent of families receiving income from public assistance generally decreased with age at entry. Families of Black and Hispanic enlistees received public assistance far more often than families of White enlistees. Families of personnel entering the Army and Marine Corps received

public assistance more frequently than families of personnel entering the Navy and Air Force. See Table A-22.

The level of education of respondents' parents is contained in Tables A-23 and A-24. Neither the father's nor mother's adjusted education level exhibited any discernible dependency with the respondent's age at entry. Fathers were generally more educated than mothers. Parents of males had a higher education level than parents of females. Parents of Whites were more educated than parents of Blacks, who were more educated than parents of Hispanics. The educational attainment of parents of personnel entering the Air Force was somewhat higher than that of personnel entering the Navy and Marine Corps and significantly higher than that of personnel entering the Army.

In summary, younger enlistees lived at home more often than older enlistees. But at age 14, there was essentially no difference by entry age in the percent of respondents who lived with one or both parents. Older respondents had lived in slightly more states and countries than younger respondents. Personnel entering the military had an average of about four siblings. The proportion of enlistees whose fathers had served in the military appeared to be independent of entry age, while the number of enlistees' siblings who had served on active duty increased slightly as entry age increased. Older respondents' families had more annual income than younger respondents' families, and the income of

younger respondents' families generally included public assistance more frequently than the income of older respondents' families. The educational attainment of enlistees' parents appeared to be independent of entry age.

#### B. EDUCATIONAL BACKGROUND

Manpower must be recruited by the Armed Forces in the quantity and quality necessary for the Armed Forces to fulfill its missions. The quantity of personnel recruited is a relatively simple concept; the quality of personnel recruited is a relatively complex concept. Since no official Department of Defense definition of quality exists [Ref. 6: p. 1], a discussion of quality often includes a wide variety of factors (for example, socio-economic factors). Generally, however, quality is measured by education. The AFEES Survey contained numerous questions concerning education, the examination of several of which follows.

Respondents were asked their education level as well as their expected education level upon entering active duty (since 85 percent of the respondents delayed entering active duty for up to one year through the Delayed Entry Program). Respondents' expected education level upon entering active duty is contained in Table B-1. Entry age and the control variables of sex, race, and branch of service were all statistically significant at the .001 level.

As the entry age of cohorts increased from 17 years to 25 to 35 years, the adjusted education level increased

monotonically over a range of almost two years. Thus, recruitment of a larger percentage of older age individuals should significantly improve the average educational attainment of personnel entering military service. Females completed about one half year more education than males, probable due to more stringent entrance requirements. Respondents joining the Air Force had a much higher level of education than respondents joining the other services, by about one half year.

Respondents' school grades are represented in Table B-2 as a grade point average. The adjusted grade point average generally increased as entry age increased. This indicator of higher quality among older age individuals was somewhat surprising since, in the general population, grade point average is not obviously related to age, as is educational attainment, for example. Females had a higher grade point average than males. Air Force personnel received better school grades than personnel in the other services.

Only about one fourth of the respondents were required to take a minimum competency test in order to qualify for a high school diploma. Their test results are summarized in Table B-3. Adjusted test results exhibited no apparent pattern by entry age. Again, females and Air Force personnel performed better than males and personnel in the other services, respectively.

As noted in Table B-4, 29 percent of the respondents were in school on a full or part time basis at the time of

the survey. Table B-5 indicates that a large majority of individuals entered the Delayed Entry Program primarily in order to finish school. Both of these matters were highly age dependent: as the entry age of cohorts increased, the adjusted means of respondents who were in school and who delayed entry to finish school generally decreased, and over a wide range. Relatively many more 17 and 18 year olds than 19 year olds, and even fewer individuals 20 years of age and older were in school and chose to delay entering active duty in order to finish school. A much higher proportion of personnel in the Marine Corps were in school and entered the Delayed Entry Program to finish school than personnel in the other services. Most of these individuals were 17 and 18 year olds enlisting in the Marine Corps directly from high school.

Approximately one-fourth of all respondents had attended a vocational, technical, or business school. Relatively little difference existed within the sex, race, and branch of service control variables. However, as entry age increased, adjusted attendance at a vocational, technical, or business school generally increased over a wide range. See Table B-6.

As summarized in Table B-7, the adjusted level of importance placed upon job requirements for mental skills increased monotonically with entry age. Air Force personnel placed a slightly higher level of importance upon job requirements for mental skills than personnel from the other services.

The educational aspirations of respondents are reflected in Tables B-8, B-9, and B-10. Table B-8 indicates that slightly more than half of the personnel entering military service enlisted to obtain money for college. However, as indicated in Table B-9, about three-fourths of all enlistees planned to participate in the Veteran's Educational Assistance Program (VEAP). In both tables the adjusted means were age dependent; as the entry age of cohorts increased, the proportions of personnel who enlisted to obtain money for college and who planned VEAP participation increased, respectively.

Table B-10 represents respondents' expected future level of education. Entry age and the control variables of sex, race and branch of service were all significant at the .001 level. The adjusted education level increased monotonically over a range of more than two years as the entry age of cohorts increased from 17 years to 25 to 35 years. This was consistent with respondents' expected education level upon entering active duty. With respect to these tables, it appeared that females were more oriented toward additional education than males, Blacks and Hispanics more than Whites, and Air Force personnel more than personnel in the other services.

The preceding information concerning the relationship of entry age and education is contained in Table 6. In summary, older individuals attained a higher level of education and

TABLE 6

## EDUCATIONAL BACKGROUND \*

TABLE	SAMPLE MEAN	17	18	19	20	21	22	23	24	25-35
B-1: Education	11.79 Years	11.04	11.60	11.79	11.95	12.16	12.29	12.69	12.82	12.99
B-2: School Grade Point Average	2.48 GPA	2.38	2.49	2.49	2.48	2.53	2.48	2.55	2.57	2.60
B-3: High School Competency Test	92% Passed	86	94	91	90	93	94	97	90	96
B-4: School Status	29% In School	42	44	24	12	11	9	5	8	7
B-5: Delayed Entry To Finish School	25% Positive	39	37	20	7	8	6	5	7	4
B-6: Voc/Tech/Bus School Attendance	25% Positive	19	21	24	30	34	34	32	35	37
B-7: Job Requirements for Mental Skills	2.40 Importance	2.33	2.34	2.39	2.44	2.47	2.52	2.56	2.59	2.62
B-8: Enlisted-Money for College	53% Positive	47	51	55	55	58	63	53	52	54
B-9: VEAP Intention	75% Positive	67	75	77	77	78	77	78	80	74
B-10: Future Ed.	14.18 Years	13.37	13.82	14.13	14.48	14.80	15.08	15.49	15.58	15.69

\* Adjusted for the effects of sex, race, and branch of service

performed better in school than younger individuals. Older enlistees had higher educational aspirations than younger enlistees, and more planned to enroll in the VEAP in order to obtain money for college. Job requirements for mental skills were relatively important for older individuals. A greater proportion of older enlistees had attended a vocational, technical, or business school. A much larger proportion of younger enlistees were in school and delayed entering active duty in order to finish school.

#### C. CIVILIAN LABOR FORCE EXPERIENCE

##### 1. Employment Status and History

General economic conditions affect the supply of enlisted personnel. As a result, enlistment supply models generally use some measure of an unemployment rate as an explanatory variable. Local economic conditions may bear more upon forecasting enlisted supply than national economic conditions [Ref. 1, p. 14]. Local economic conditions are reflected in the AFEES Survey data in the employment status and employment history of individuals entering the military. Therefore, an examination of enlistees' civilian labor force experiences may provide insight into the relationship of enlistment to economic conditions.

Many questions in the AFEES Survey are related to civilian employment. Those examined involve respondents' current and former employment and employment-related motivation for enlisting.



Respondents' employment history is summarized in Table 7. A discussion of the specific survey data analyzed follows.

Respondents' employment status is contained in Table C-1. At the time of the survey, 32 percent of the respondents were employed. The adjusted percent employed by entry age cohort exhibited a slight increasing trend. Tables C-2 and C-3 indicate that employed respondents worked an average of 34.8 hours per week at an average hourly salary of \$3.67. After adjusting for the effects of age, sex, and branch of service, both hours per week worked and hourly earnings increased moderately with entry age. Individuals in the 25 to 35 year entry age cohort worked over ten hours per week more and received almost \$2.00 per hour more than 17 year olds.

Proportionately, more females were employed than males, and more Whites were employed than Blacks and Hispanics. Both hours per week worked and hourly earnings were significantly higher for males than for females and somewhat higher for Hispanics than for the other races. Lesser differences existed in employment status, hours per week employed, and hourly earnings among the branches of service.

At some time, 88 percent of the respondents had been employed. Respondents were asked to place their most recent job into one of twelve categories. The distribution by category is contained in Table C-4. Of the first six categories, which included 85 percent of the respondents,

TABLE 7

## EMPLOYMENT STATUS AND HISTORY\*

TABLE	SAMPLE MEAN	17	18	19	20	21	22	23	24	25-35
C-1: Employment Status	32% Employed	29	34	29	32	30	31	32	34	36
C-2: Employed: Hours per Week	34.8 hours	29.9	31.0	36.3	39.0	39.4	39.4	42.0	41.9	41.3
C-3: Employed: Hourly Earnings	\$3.67	3.08	3.26	3.65	4.07	4.18	4.32	4.52	4.80	4.91
C-5: Previous Job--Clerical	10% Positive	7	8	11	11	12	12	11	18	12
C-6: Previous Job--Service	21% Positive	30	27	20	15	14	15	12	11	8
C-7: Former Job--30 Hours/Wk	88% Positive	80	83	90	93	95	96	97	97	97
C-8: Number of Employers	3.1 Employers	2.3	2.7	3.2	3.5	3.8	3.9	4.0	4.2	4.3
C-9: Former Job--Government	14% Positive	17	15	15	13	11	9	10	9	9
C-10: Unemployment Compensation	10% Positive	1	3	7	14	20	22	30	27	39
C-11: 1978 Earnings	\$2467	936	1442	2329	3518	4059	4327	4880	5408	5702
C-12: Fired	18% Positive	17	16	18	20	22	23	16	20	19
C-13: Laid Off	28% Positive	23	23	26	31	36	40	35	32	38
C-14: Quit -- Insufficient Pay	37% Positive	28	32	37	43	43	45	49	49	45
C-15: Quit -- Poor Advancement	31% Positive	20	26	31	37	38	39	46	43	41

\* Adjusted for the effects of sex, race, and branch of service

only two displayed entry age dependencies: office and clerical worker, and service worker (for example, janitor and waitress). The adjusted proportion of office and clerical workers increased moderately with entry age, while the adjusted proportion of service workers decreased sharply as entry age increased. See Tables C-5 and C-6.

Of those respondents who had been employed, 88 percent had worked 30 hours or more per week. Table C-7 shows that the adjusted proportion of individuals who had at some time worked full time increased with entry age. Almost all of the older enlistees had worked full time. Relatively more males than females and more Whites than Blacks and Hispanics had worked full time.

Previously employed individuals entering the military had worked for an average of about three employers (Table C-8). The adjusted number of employers increased monotonically by entry age cohort from an average of more than two for 17 year olds to an average of more than four for 25 to 35 year olds. There was little difference in the number of previous employers within the sex, race, and branch of service factors.

About 14 percent of the respondents had been employed in a government sponsored training program, such as CETA or the Job Corps, during 1978 or 1979. As noted in Table C-9, the adjusted proportion of respondents who had participated in a government sponsored training program decreased as entry

age increased. Proportionately, more Blacks had participated than Hispanics, and more Hispanics had participated than Whites.

Unemployment compensation had been received by 10 percent of the previously employed personnel entering the military. The adjusted proportion of respondents who had received unemployment compensation increased dramatically with age at entry. Little difference existed within the sex, race, and branch of service control variables. See Table C-10.

Typical 1978 earnings for an enlistee (Table C-11) were \$2,467. The adjusted annual income for a typical enlistee increased quite rapidly with entry age, from a low of less than \$1000 to a high of close to \$6,000. (For purposes of comparison, an enlistee in grade E-1 would have received \$7745 in regular military compensation (consisting of basic pay, subsistence and quarters allowances, and the tax advantage on the tax free allowances) during Fiscal Year 1979.) Lesser yet significant differences also existed within the sex, race, and branch of service factors. Males earned about \$500 more than females, Whites earned almost \$700 more than Hispanics and \$900 more than Blacks, and Air Force personnel earned several hundred dollars more than personnel entering the other services.

Enlistees' former jobs had been terminated for a variety of reasons. Four of the more common reasons for job termination were being fired, being laid off, quitting due to insufficient pay, and quitting due to poor advancement opportunity.

Table C-12 shows that 18 percent of the respondents had been fired from some previous job. The adjusted proportion fired appeared to be relatively constant by entry age. But the significantly greater civilian labor force experience of older individuals previously noted (for example, greater number of employers) implies that as entry age increased, the propensity for being fired from a job actually decreased.

As indicated in Table C-13, 28 percent of the respondents had been laid off from a previous job. The adjusted proportion of the respondents who had been laid off appeared to increase as the entry age of cohorts increased, but again, after accounting for the greater civilian labor force experience of older individuals, the tendency to be laid off was relatively constant by age at entry.

Males had been fired and laid off more often than females. Whites had been fired more often than Blacks and Hispanics. Individuals entering the Air Force had been fired and laid off slightly less than individuals entering the other services.

Two frequent reasons for individuals to quit jobs were insufficient pay and poor advancement opportunity. (See Tables C-14 and C-15.) For both reasons the adjusted proportion of individuals who had quit increased significantly with entry age. Again, however, after considering the greater civilian labor force experience of older individuals, the proportion who had quit for either reason was relatively constant by entry age.

Whites had quit jobs due to insufficient pay and poor advancement opportunity more often than Blacks and Hispanics. Lesser differences were present on the basis of sex or branch of service.

In summary, older individuals were more often employed while working more hours and earning more per hour than younger individuals. Of the more common civilian job categories, only the categories of office and clerical worker and service worker appeared to be related to entry age. Older enlistees had been employed full time more often and had worked for more employers than younger enlistees. Younger enlistees had participated more frequently in government sponsored job training programs. Older individuals had received unemployment compensation to a far greater extent than younger individuals. Older respondents earned significantly more than younger respondents on an annual basis.

Although it appeared that the number of respondents who had been fired from some job was relatively constant by entry age, consideration of the significantly greater labor force experience of older age individuals implies that there was actually a decreasing tendency to be fired as entry age increased. Similar consideration implies that a relatively constant proportion of respondents by entry age had been laid off or had quit jobs due to insufficient pay and poor advancement opportunity.

## 2. Employment-Related Motivation for Enlisting

An indication of the relationship of motivation for enlisting in the military to employment is summarized in Table 8. A discussion of the specific surveyed data analyzed by entry age follows.

Of several reasons that respondents indicated were factors in their decision to enlist in the military, two were related to employment: an inability to obtain civilian employment (Table C-16) and to earn more money (Table C-17).

Of the respondents, 16 percent cited an inability to find civilian employment as a factor in enlisting. The adjusted percent who indicated that it was a factor was relatively constant with age at entry. Blacks and Hispanics indicated the inability to obtain civilian employment as a factor more often than Whites. Army enlistees indicated it was a factor more often than enlistees in the other services.

Almost one-third of the respondents enlisted in order to earn more money. As entry age increased, the adjusted percent of individuals who enlisted to earn more money decreased at a moderate rate. Females provided this as a factor more often than males, Blacks and Hispanics more often than Whites, and Army personnel more often than personnel in the other services.

Table C-18 reflects the fact that most individuals considered steady employment to be a very important job

TABLE 8

## EMPLOYMENT-RELATED MOTIVATION FOR ENLISTING\*

TABLE	SAMPLE MEAN	17	18	19	20	21	22	23	24	25-35
C-16: Enlisted--Unemployed	16% Positive	15	14	17	18	19	20	17	17	17
C-17: Enlisted to Earn More Money	32% Positive	36	33	32	30	30	27	29	25	28
C-18: Job Characteristic--Steady Employment	2.81 Importance	2.80	2.82	2.81	2.82	2.80	2.82	2.75	2.76	2.79
C-19: Military-Civilian Job Similarity	20% Positive	15	18	21	21	22	22	32	22	29
C-20: Employment Intention If Not Enlisting	84% Positive	78	81	85	88	86	91	92	93	92
C-21: Annual Earnings If Not Enlisting	\$5033	3736	4407	4877	5591	5872	6511	6891	6974	7651
C-22: Alternative Employment--\$500/month	89% Enlisting	89	87	88	89	90	91	97	94	97
C-23: Alternative Employment--\$700/month	68% Enlisting	67	65	63	69	72	72	79	80	84

\* Adjusted for the effects of sex, race, and branch of service



characteristic. The level of importance by sex, race, and branch of service was essentially constant, as was the adjusted level of importance by age at entry.

Individuals enlisted for a military job similar to a former civilian job about one-fifth of the time (Table C-19). The adjusted proportion who enlisted for a similar job increased with entry age.

If they had been ineligible to enlist in the military, 84 percent of the respondents indicated that they would have obtained or attempted to obtain civilian employment (either full time or part time). Most of the others would have returned to school. The adjusted proportion of individuals who would have attempted to obtain employment increased moderately with entry age. Whites would have attempted to find civilian employment slightly more often than Blacks and Hispanics. See Table C-20.

If they had not enlisted, respondents would have expected to earn about \$5000 per year. (As noted previously, an enlistee in grade E-1 would have received \$7745 in regular military compensation during Fiscal Year 1979.) Table C-21 indicates that respondents' adjusted anticipated annual earnings increased with entry age, and for older individuals it was about double what it was for younger individuals. Lesser, but statistically significant, differences were also present by sex, race, and branch of service: males, Whites, and personnel entering the Air Force expected to earn more than their counterparts.

Military earnings are generally considered to be an important factor in predicting enlisted supply. Of the respondents, 89 percent would have enlisted in the military instead of accepting alternative civilian employment paying \$500 per month (Table C-22), but only 68 percent would have enlisted instead of accepting alternative civilian employment paying \$700 per month (An enlistee in grade E-1 received \$645 per month in regular military compensation in Fiscal Year 1979.) The adjusted proportion of both groups who would have enlisted anyway increased with entry age. Since previously noted findings concerning civilian employment indicated that older individuals were more often employed with higher earnings than younger individuals, it appears that alternative civilian employment opportunities affording relatively low pay have a diminishing impact as entry age increases. Somewhat surprisingly, in both cases Whites and Hispanics stated a greater intention than Blacks to enlist anyway.

In summary, there was no apparent age dependency for individuals who enlisted due to an inability to obtain civilian employment. Younger individuals enlisted more often than older individuals in order to earn more money. All age cohorts considered steady employment to be a very important job characteristic. More older than younger respondents enlisted for a military job similar to a former civilian job. If ineligible to enlist, more older than younger respondents

would have sought civilian employment, with greater anticipated annual earnings. Relatively low paying alternative civilian employment opportunities generally would have less impact as entry age increases.

#### D. RECRUITING PROCESS

An indication of the relationship of the recruiting process to the entry age of personnel entering military service is summarized in Table 9. Analysis of responses to survey questions was conducted in these areas: media by which information from the service branches was received; the manner in which contact with the first recruiter was made; instances in which contact was made with only one recruiter; the number of service branches for which contact with a recruiter was made; the amount of information provided by the recruiter concerning military jobs; the time between initial contact with a recruiter and the final decision to enlist; the time between the final decision to enlist and entry into active military service; the number of Armed Services Vocational Aptitude Battery (ASVAB) tests taken; prospective entry into another branch of service if ineligible to enlist in the branch of service entered; and consideration of entering the Reserves or National Guard. Investigation of the relationship of the recruiting process and entry age follows.

Respondents could request information from the service branches through a toll free number and through a postcard or coupon. A toll free number was used by 25 percent of

TABLE 9

## RECRUITING PROCESS\*

TABLE	SAMPLE MEAN	17	18	19	20	21	22	23	24	25-35
D-1: Used Toll Free Number	25% Positive	27	25	24	26	25	23	20	24	25
D-2: Used Postcard of Coupon	29% Positive	40	36	29	18	20	18	14	18	10
D-3: Contacted Recruiter at Office	63% Positive	58	53	61	73	77	85	88	85	87
D-3: Personally Contacted by Recruiter	15% Positive	16	21	17	11	7	4	4	4	5
D-4: Only One Recruiter	50% Positive	48	47	49	52	57	55	56	63	54
D-5: Number of Services with Recruiter Contact	1.49 Services	1.53	1.54	1.48	1.42	1.40	1.40	1.43	1.41	1.48
D-6: Information Provided About Military Job	3.10 Information	3.16	3.12	3.12	3.07	2.99	3.03	3.04	3.00	3.02
D-7: Recruiter Contact-- Decision to Enlist	4.71 Months	3.13	4.21	5.13	5.43	6.53	5.02	6.12	6.74	4.80
D-8: Decision to Enlist-- Entry into Active Duty	3.88 Months	4.30	4.59	3.81	3.10	2.73	2.74	3.06	2.93	2.97
D-9: ASVAB Tests Taken	1.29 ASVABs	1.22	1.25	1.34	1.41	1.44	1.24	1.30	1.23	1.21
D-10: Ineligible--Enlist in Another Service	72% Positive	76	74	71	71	71	73	72	62	60
D-11: Consideration of Re-serves or Nat'l Guard	28% Positive	23	28	29	29	29	32	28	29	33

\* Adjusted for the effects of sex, race, and branch of service

the respondents, and a postcard or coupon was used by 29 percent of the respondents. Tables D-1 and D-2 indicate the proportion of respondents who requested information using a toll free number and postcard or coupon, respectively.

With respect to the sex, race, and branch of service control factors, generally minor differences existed in the proportion of respondents who requested information by each of the two means. The adjusted proportion of respondents who used a toll free number varied only slightly by entry age. The adjusted proportion of respondents who used a postcard or coupon decreased greatly as entry age increased.

Table D-3 indicates that more than four times as many respondents initiated contact with their first recruiter as were personally contacted by their first recruiter. The adjusted ratio increased sharply as entry age increased. Older individuals contacted their first recruiter much more frequently than younger individuals. Older individuals were seldom personally contacted by their first recruiter, whereas 17 to 19 year olds were personally contacted by their first recruiter relatively often.

One-half of the personnel entering the military service talked with only one recruiter (Table D-4). Minor differences existed in this regard by race and branch of service. As entry age increased, a slight increasing trend in the adjusted proportion of respondents who talked with only one recruiter was evident.

As reflected in Table D-5, enlistees talked with recruiters from an average of 1.49 branches of service. Variations by race, branch of service, and to a lesser extent sex were present. The adjusted number of branches of service for which personal contact with a recruiter was made decreased slightly as entry age increased.

Recruiters generally provided respondents with some information concerning their military job (Table D-6). Differences based on sex, race, and branch of service were generally minor. Individuals who enlisted in the Marine Corps were least satisfied with the amount of information provided by the recruiter about their military job. As entry age increased, enlistees' adjusted satisfaction with the military job information provided to them by their recruiter decreased slightly.

On the average, 4.71 months elapsed between the respondent's first contact with a recruiter and the respondent's decision to enlist (Table D-7). Hispanics on the average took about one month less time between these two events than Whites and Blacks. Adjusted entry age was statistically significant. A general increasing trend of over three months in time between initial recruiter contact and the decision to enlist was evident as entry age increased.

The data in Table D-8 shows that an average of 3.88 months of additional time occurred between the respondent's decision to enlist and entry into active duty. However,

since 87 percent of enlistees entered an inactive duty status through the Delayed Entry Program for an average of 3.22 months, the vast majority of enlistees actually contracted for active duty shortly after making their decision to enlist. The sex, race, and branch of service control factors were all statistically significant, as was age at entry after adjusting for the control factors. As entry age increased, the adjusted time between the respondent's decision to enlist and entry into active duty generally decreased.

In order to enlist in a military service, an individual must demonstrate acceptable mental aptitude by passing the ASVAB. ASVAB scores are also used to determine the military jobs for which an individual may qualify. The number of ASVABs taken by an individual prior to entering military service is contained in Table D-9. The adjusted number of ASVABs taken by entry age showed no clear pattern. However, 19, 20, and 21 year olds took more ASVABs than other ages. Relatively small differences existed within the sex, race, and branch of service control variables.

If they had been ineligible to enlist in the branch of service entered, 72 percent of the respondents would have enlisted in another branch of service (Table D-10). The sex, race, and branch of service control factors differed little with the exception of Air Force personnel, who would have enlisted for another branch of service less often than personnel in the other services. The adjusted proportion of

respondents by entry age who would have enlisted in another branch of service was fairly constant except for 24 and 25 to 35 year olds, who would have done so less often.

Only 28 percent of the personnel entering military service considered joining the Reserves or National Guard (Table D-11). Variations by sex, race, and branch of service were relatively minor. After adjusting, differences by entry age were also minor: 17 year olds gave less consideration to joining the Reserves or National Guard than other entry age cohorts.

In summary, responses to several of the survey questions pertaining to the recruiting process appeared to be entry age dependent. The proportion of respondents who used a postcard or coupon to request information from a branch of service was significantly higher for younger than older individuals, whereas the proportion who used a toll free number was relatively constant by entry age. The frequency with which older individuals initiated contact with the recruiter was much higher than that for younger individuals. As entry age increased, respondents were somewhat more likely to contact only one recruiter, and recruiters from slightly fewer branches of service were contacted. Older respondents were not quite as satisfied with the amount of military job information that recruiters provided them.

From the time of their first contact with a recruiter, older enlistees took longer than younger enlistees to make



the decision to enlist. However, they took less time to actually enter active duty following their decision to enlist, in large part because older personnel spent less time in the Delayed Entry Program than younger personnel. The number of ASVABs taken by respondents showed no discernible pattern. If ineligible to enlist in the branch of service they entered, respondents would have enlisted in another branch of service at a fairly constant frequency by entry age. Consideration given to enlisting in the Reserves or National Guard was relatively constant by entry age except for 17 year olds, who considered enlisting less often than other entry ages.

#### E. ENLISTMENT CHARACTERISTICS AND PERCEPTIONS

##### 1. Enlistment Characteristics

A summary of the relationship of entry age to the enlistment characteristics of personnel entering military service appears in Table 10. The following survey data were analyzed: active duty obligation, total military obligation, branch of service, delayed entry program, entry grade, enlistment bonus, guaranteed location, and expected location.

With regard to contract length, respondents enlisted into the military for an average of 3.79 years of active duty. Whites contracted for slightly longer terms of service than Blacks and Hispanics. Individuals entering the Navy and Air Force enlisted for significantly longer periods than individuals entering the Army and Marine Corps. After

TABLE 10

## ENLISTMENT CHARACTERISTICS\*

TABLE	SAMPLE MEAN	17	18	19	20	21	22	23	24	25-35
E-1: Active Duty Obligation	3.79 Years	3.75	3.79	3.79	3.79	3.81	3.80	3.81	3.77	3.86
E-2: Total Military Oblig.	5.36 Years	5.38	5.36	5.36	5.32	5.42	5.35	5.43	5.50	5.22
E-3: Branch of Service-Army	42.7% Positive	39	44	42	44	44	43	42	42	49
E-3: Branch of Service-Navy	21.9% Positive	26	21	23	21	22	21	18	20	17
E-3: Branch of Service-Air Force	24.0% Positive	19	22	24	26	26	29	32	32	30
E-3: Branch of Service-Marines	11.4% Positive	15	12	11	9	8	7	7	6	4
E-4: Delayed Entry Program	85% Positive	88	88	84	82	82	78	79	81	78
E-5: Months in Delayed Entry Program	3.22 Months	3.25	3.81	2.99	2.65	2.47	2.39	2.38	2.69	2.53
E-6: Entry Grade E-1	87.6% Positive	93	90	90	87	87	84	77	80	72
E-6: Entry Grade E-2	3.8% Positive	3	4	4	5	5	3	3	4	4
E-6: Entry Grade E-3	7.6% Positive	5	6	7	8	8	11	18	13	21
E-6: Entry Grades E-4-E-5	1.0% Positive	0	0	0	1	1	3	3	4	5
E-7: Enlistment Bonus	17% Positive	16	16	18	19	18	14	15	17	19

\* Adjusted for the effects of sex, race, and branch of service

TABLE 10 (CONT.)

TABLE	SAMPLE MEAN	17	18	19	20	21	22	23	24	25-35
E-8: Amount of Enlistment Bonus	\$2186	2200	2084	2233	2199	2208	2294	2297	2351	2297
E-9: Guaranteed Location	39% Positive	38	38	42	39	39	37	35	37	39
E-10: Expected Location- In the U.S.	73.2% Positive	73	74	71	73	68	75	72	78	76
E-10: Expected Location- Overseas	22.0% Positive	22	21	24	21	28	21	23	18	20
E-10: Expected Location- At Sea	4.7% Positive	6	5	5	6	4	4	5	4	4

adjusting for the sex, race, and branch of service control factors, the nine entry age cohorts varied very little with respect to active duty obligation. See Table E-1.

In addition to the active duty requirement, enlistees contracted for a reserve forces obligation. Table E-2 indicates that the average total military obligation (active and reserve duty) for individuals entering the military was 5.36 years. Males contracted for slightly longer periods than females. Whites had a total obligation of about one half year more than Blacks and Hispanics. Army enlistees had a total commitment of about one-half year less than enlistees in the other services. Again, the adjusted total military obligation was fairly constant by entry age cohort, with only the two oldest age cohorts varying much from the mean.

Respondents enlisted into the branches of service by entry age as shown in Table E-3 (adjusted for sex and race only). As entry age increased, the proportion of Air Force enlistees increased and the proportion of Marine Corps enlistees decreased. The proportion of enlistees in the Navy was relatively constant for entry age cohorts 18 through 22 years, but overall it decreased slightly as entry age increased. Respondents 18 through 24 years of age enlisted in the Army at a relatively constant frequency. Proportionately fewer 17 year olds enlisted in the Army, while proportionately more 17 year olds enlisted in the Navy. Enlistees in entry age cohort 25 to 35 years joined the Army proportionately more often.

Rather than enter active duty immediately, 85 percent of the respondents opted for an inactive duty status through the Delayed Entry Program (Table E-4). Males and Hispanics entered the Delayed Entry Program less often than their counterparts. Enlistees in the Navy and, in particular, the Air Force, entered the Delayed Entry Program less often than Army and Marine Corps enlistees. As entry age increased, the adjusted proportion of individuals who entered active duty directly increased.

Respondents delayed entering active duty for periods of up to one year, with an average delay time of 3.22 months as indicated in Table E-5. Females and Whites delayed active service slightly longer than their counterparts. Enlistees in the Marine Corps and Air Force spent more time in the Delayed Entry Program compared to enlistees in the other branches of service. The adjusted period of delay generally decreased as entry age increased.

Respondents entered the military in grades E-1 to E-5 (Table E-6). As entry age increased, the adjusted proportion of individuals entering grade E-1 decreased and grades E-3 to E-5 increased.

Enlistment bonuses (Table E-7) that averaged almost \$2200 (Table E-8) were received by 17 percent of the respondents. Rather significant differences were present in the percent of individuals receiving enlistment bonuses by sex and race. Huge variations by branch of service reflected the higher frequency with which the Army and Marine Corps utilized enlistment bonuses. After adjustments, bonuses

were received at comparatively equal frequencies by the various entry age cohorts. Amounts of bonuses varied slightly by race, moderately by sex, and greatly by branch of service, with the Army and Marine Corps typically paying a larger bonus. Adjusted bonus amounts were only slightly higher for older than for younger enlistees.

The proportion of enlistees who contracted for a guaranteed duty location upon successful completion of initial military training is contained in Table E-9. Females and Whites received guaranteed locations less frequently than their counterparts. Again, large differences were present within branch of service, indicative of non-uniform policies by the services: the Army provided a guaranteed location far more often than the other services. The adjusted proportion of individuals receiving a guaranteed location varied very little by entry age.

Respondents were asked to indicate their expected initial duty assignment location upon completion of military training according to the following categories: in the U.S. within 100 miles of their home, in the U.S. 100 to 500 miles from their home, in the U.S. more than 500 miles from their home, overseas, or at sea. Table E-10 reflects the proportion of respondents by entry age who selected in the U.S. (combining three categories), overseas, and at sea. As entry age increased, the adjusted proportion of respondents who expected to be assigned in the U.S., overseas, and at sea was fairly stable.

In summary, the active duty and total military obligations of enlistees were approximately constant by entry age. As entry age increased, respondents enlisted in the Navy proportionately more and in the Marine Corps proportionately less. Younger respondents delayed active service through the Delayed Entry Program more frequently and for longer periods than older respondents. Older individuals enlisted in grades E-3 to E-5 more often than younger individuals. The proportion of enlistees who received bonuses was essentially constant by entry age, although the amount of the bonuses was slightly higher for older individuals. Personnel entering the military received a guaranteed location with comparable frequency by age at entry. Enlistees expected to be assigned in the U.S., overseas, and at sea with little difference by age at entry.

## 2. Enlistment Perceptions

Respondents' perceptions about enlistment are related to entry age in Table 11. A discussion of the specific survey data analyzed follows.

Respondents were queried about which of 11 reasons provided was considered to be the most important reason for enlisting. The five reasons indicated in Table E-11 were viewed as most important by 83 percent of the respondents. The adjusted frequency with which each of the five reasons was considered to be most important was related to entry age. Getting away from home, serving country, and receiving

TABLE 11

## ENLISTMENT PERCEPTIONS\*

TABLE	SAMPLE MEAN	17	18	19	20	21	22	23	24	25-35
E-11: Enlistment Reason-Get Away From Home	20.6% Positive	23	24	20	20	18	18	16	16	14
E-11: Enlistment Reason- Better Oneself	22.1% Positive	22	20	22	22	26	28	25	24	27
E-11: Enlistment Reason- Serve Country	9.1% Positive	11	10	8	8	7	7	10	8	10
E-11: Enlistment Reason- Prove Oneself	15.6% Positive	14	14	16	19	19	19	19	21	19
E-11: Enlistment Reason- Receive Training	15.9% Positive	17	18	17	15	13	14	12	13	12
E-13: Delayed Entry Reason- Finish School	24.7% Positive	39	37	20	7	8	6	5	7	4
E-13: Delayed Entry Reason- Mil. Job/Location	26.0% Positive	22	20	28	34	33	31	34	38	36
E-13: Delayed Entry Reason- Personal Affairs	29.2% Positive	19	22	31	39	40	43	45	42	44
E-13: Delayed Entry Reason- Time Off	12.4% Positive	13	14	12	10	10	9	6	6	4
E-14: Desired Active Duty Obligation	3.36 Years	3.46	3.31	3.38	3.30	3.38	3.40	3.44	3.41	3.58

\* Adjusted for the effects of sex, race, and branch of service



TABLE 11 (CONT.)

TABLE	SAMPLE MEAN	17	18	19	20	21	22	23	24	25-35
E-15: Desired Branch of Service-Army	35.0% Positive	32	36	34	36	35	35	35	34	41
E-15: Desired Branch of Service-Navy	22.1% Positive	26	21	23	21	22	20	18	21	17
E-15: Desired Branch of Service-Air Force	30.7% Positive	26	29	31	33	33	38	39	38	36
E-15: Desired Branch of Service-Marines	12.1% Positive	16	13	12	10	9	7	8	7	6
E-16: Enlist for Same Job If No Bonus	72% Positive	70	75	68	77	70	71	77	49	69
E-17: Desired Location-In The U.S.	66.2% Positive	64	66	67	67	62	69	64	67	68
E-17: Desired Location-Overseas	29.5% Positive	31	28	28	28	33	28	29	30	29
E-17: Desired Location-At Sea	4.4% Positive	4	4	4	4	3	3	5	2	2
E-18: Expected Promotions In First Year	1.61 Promotions	1.56	1.55	1.59	1.69	1.68	1.77	1.65	1.77	1.71
E-19: Reenlistment Intention	70% Positive	73	68	66	68	74	72	76	77	80
E-20: Expected Active Military Service	8.42 Years	8.85	8.17	7.85	8.04	8.63	8.85	9.85	9.40	10.00
E-21: Expected Satisfaction With Military Life	3.90 Satisfaction	3.79	3.91	3.91	3.80	3.98	3.96	3.99	3.99	4.04

training (relevant to a civilian job) decreased in importance as entry age increased. Conversely, bettering oneself and proving oneself increased in importance as entry age increased.

Analysis of respondents' main reason for enlisting is qualified as follows. Respondents were also asked which of the 11 reasons were factors (not necessarily the most important factor) in their decision to enlist. All 11 of the reasons provided are listed in Table E-12, along with the percent of respondents for whom each reason was a factor in the enlistment decision. Several reasons that were seldom considered to be most important were nonetheless often considered as factors in the decision to enlist (for example, travel and money for college).

Respondents were asked to select one of six reasons provided as the main reason for entering the Delayed Entry Program. The four common responses given (selected more than 90 percent of the time) are contained in Table E-13. A strong relationship between each reason and entry age, after adjusting for sex, race, and branch of service, was apparent. Younger respondents frequently selected finishing school and time off; older respondents often chose (waiting for availability of desired) military job or location and personal affairs.

Respondents desired to enlist into the military for an average active duty obligation of 3.36 years (Table E-14), almost one-half year less than their actual obligation. As

entry age increased, the adjusted desired active duty obligation increased very slightly.

Table E-15 indicates respondents' preference for branch of service (adjusted for sex and race only). Trends are very similar to those previously noted with respect to the branch of service actually entered. More individuals desired to enter than actually entered the Air Force, and correspondingly fewer individuals desired to enter than actually entered the Army.

As indicated in Table E-16, an unexpectedly high 72 percent of the respondents would have enlisted for the same military job if enlisting for that job had not entitled the respondent to receive an enlistment bonus. Moderate differences were present within the sex, race, and branch of service factor categories. Differences by age at entry in the adjusted proportion of respondents who would have enlisted for the same job anyway could have been due to the small sample sizes, particularly in the case of 24 year olds.

In addition to being asked their expected location, respondents were asked to indicate their desired initial duty assignment location upon completion of military training (Table E-17), according to the same response alternatives previously noted. The adjusted proportion of respondents who desired to be assigned in the U.S., overseas, and at sea was roughly constant for all entry ages.

The findings for desired location and expected location were strikingly similar. The major difference in the findings was the proportion of respondents indicating the categories in the U.S. and overseas. On the average, about seven percent more respondents desired than expected to be assigned overseas, and about seven percent fewer respondents desired than expected to be assigned in the U.S. The proportion of respondents desiring and expecting assignment at sea was roughly equivalent. That this comparison between desired and expected locations held for all entry age cohorts was somewhat surprising since well under half of the respondents (39 percent) enlisted for a guaranteed location.

As indicated in Table E-18, respondents expected to receive an average of 1.61 promotions in their first year of active service. Females and Navy personnel expected to be promoted less than their counterparts. To a lesser extent, Hispanics and Air Force personnel also expected to be promoted at a less than average frequency. The adjusted expected number of promotions generally increased with entry age. Therefore, on the average, older respondents not only entered active duty at a higher grade (as previously noted), they also expected to be promoted at a slightly faster rate.

Table E-19 reflects that 70 percent of the respondents expressed an intention to reenlist after their initial term of service. Relatively minor differences existed by sex, race, and branch of service. After adjustments, moderate

differences were present based on age at entry. As entry age increased, reenlistment intention generally increased.

Expected active military service is contained in Table E-20. Significant deviations from the average response of 8.42 years were given by race and branch of service. Whites expected to serve about two years more than Blacks and Hispanics. Personnel enlisting in the Air Force, Navy, Marine Corps, and Army expected to serve longest in that order, over a range of more than three years difference. The adjusted expected active military service generally increased as entry age increased from 18 to 25 to 35 years. Respondents 17 years of age, however, expected to serve almost one half year more than the mean.

On the average, respondents indicated that they expected to be neither satisfied nor dissatisfied with military life (Table E-21). Responses varied little by sex, race, and branch of service. The adjusted anticipated satisfaction with military life increased rather slightly as entry age increased.

In summary, younger respondents more often enlisted to get away from home, serve their country, and receive training relevant to a civilian job. Older respondents more often enlisted to better themselves and prove themselves. Younger enlistees frequently entered the Delayed Entry Program to finish school and for time off, while older enlistees frequently did so to wait for a desired military

job or location to become available and to settle personal affairs.

Older enlistees had a greater desire to serve in the Air Force and a lesser desire to serve in the Army than younger enlistees. By entry age cohort, a large, fairly constant proportion of respondents would have enlisted for the same job even if they had not received a bonus. Only minor variation existed between respondents' desires and expectations concerning assignment location following initial training. Older enlistees expected to receive slightly more promotions in their first year of active service than younger enlistees. Older enlistees also intended to reenlist more often and to complete more active service than younger enlistees. Anticipated satisfaction with military life appeared to be independent of age at entry.

### III. SUMMARY

This study examined the relationship of entry age to various data concerning enlistees' individual characteristics and family background, educational background, civilian labor force experience, recruiting process, and enlistment characteristics and perceptions. All of the data were collected in the 1979 Department of Defense Survey of Personnel Entering Military Service.

The survey data were stratified into nine age cohorts according to age at entry into active military service and were examined primarily using the technique of multiple classification analysis. The purpose of this analysis was to assess the impact of the recent trend of accessing increasing proportions of older individuals. Specifically, the data were analyzed by entry age to determine differences among enlistees in indicators of quality and in other areas for which age could be a factor in formulating manpower policy.

The previous chapter contains the specific findings concerning the relationship of entry age to the survey data, divided into the following sections: individual and family background, educational background, civilian labor force experience, the recruiting process, and enlistment characteristics and perceptions. A brief summary of these findings follows.

With respect to individual and family background, older respondents were much more often married than younger respondents. Older respondents had been married slightly longer and had slightly more dependents than younger respondents. The residence of older individuals was more often a large city and less often a rural town than the residence of younger individuals. The physical condition of personnel entering military service was about the same for all entry ages.

Younger enlistees lived with their parents or guardians much more often than older enlistees. Older respondents' families had more annual income than younger respondents' families. The educational attainment of enlistees' parents appeared to be independent of entry age. The proportion of enlistees whose fathers had served in the military was unrelated to entry age, while the number of enlistees' siblings who had served on active duty increased slightly as entry age increased.

Concerning education, older individuals attained a higher level of education and performed better in school than younger individuals. Older enlistees had higher educational aspirations than younger enlistees, and more planned to enroll in the VEAP in order to obtain money for college. A much larger proportion of younger than older enlistees were in school and delayed entering active duty in order to finish school.



In the area of employment, older individuals were more often employed while working more hours and earning more per hour than younger individuals. Older enlistees had been employed full time more often and had worked for more employers than younger enlistees. Younger enlistees had participated more frequently in government sponsored job training programs.

There was no apparent age dependency for individuals who enlisted due to an inability to obtain civilian employment. All age cohorts considered steady employment to be a very important job characteristic; however, there was a decreasing tendency to be fired from a job as entry age increased. Relatively low paying alternative civilian employment opportunities generally would have less impact as entry age increases.

Certain survey data pertaining to the recruiting process appeared to be entry age dependent. The proportion of respondents who used a postcard or coupon to request information from a branch of service was significantly higher for younger than older individuals. The frequency with which older individuals initiated contact with the recruiter was much higher than that for younger individuals. As entry age increased, respondents were somewhat more likely to contact only one recruiter, and recruiters from slightly fewer branches of service were contacted. From the time of their first contact with a recruiter, older enlistees took longer

than younger enlistees to make the decision to enlist. However, they took less time to enter active duty following their decision to enlist, in large part because older personnel spent less time in the Delayed Entry Program than younger personnel. Consideration given to enlisting in the Reserves or National Guard was relatively constant by entry age except for 17 year olds, who considered enlisting in the Reserves or National Guard less often than other entry ages.

With regard to enlistment characteristics, the active duty and total military obligations of enlistees were approximately constant by entry age. As entry age increased, respondents enlisted in the Navy porportionately more and in the Marine Corps proportionately less. Younger respondents delayed active service through the Delayed Entry Program more frequently and for longer periods than older respondents. Older individuals enlisted in grades E-3 to E-5 more often than younger individuals. The proportion of enlistees who received bonuses was essentially constant by entry age, although the amount of the bonuses was slightly higher for older individuals. Personnel entering the military received a guaranteed location with comparable frequency by age at entry.

Concerning enlistment perceptions, younger respondents more often enlisted to get away from home, serve their country, and receive training relevant to a civilian job.

Older respondents more often enlisted to better themselves and prove themselves. Younger enlistees frequently entered the Delayed Entry Program to finish school and for time off, while older enlistees frequently did so to wait for a desired military job or location to become available and to settle personal affairs.

Older enlistees had a greater desire to serve in the Air Force and lesser desire to serve in the Army than younger enlistees. By entry age cohort, a large, fairly constant proportion of respondents would have enlisted for the same job even if they had not received a bonus. Only minor variation existed between respondents' desires and expectations concerning assignment location following initial training. Older enlistees intended to reenlist more often and to complete more active service than younger enlistees. Anticipated satisfaction with military life appeared to be independent of age at entry.

Quality is often measured by educational attainment. Analysis in the area of education indicated that recruitment of a larger percentage of older age individuals should improve the quality of enlistees, since older enlistees performed better in school while completing more years of education and had higher aspirations than younger enlistees. Analysis of survey data less directly related to quality (including attitudes and intentions) reinforced the conclusion that older enlistees were of significantly higher quality

than younger enlistees. Thus, active recruitment of individuals not in the traditional 17 to 21 years age range appears to be desirable in terms of enhancing overall quality.

Analysis also indicated several other implications of recruiting greater quantities of older personnel. Personnel costs could increase due to differences by entry age in marital status and number of dependents, entry grade, promotion expectations, and enlistment bonuses. Military housing would probably also be affected on the basis of all but the last item above, since entitlement to family housing might occur sooner. Reenlistment rates and career intentions could increase since older personnel are more positively inclined. A larger number of individuals would apparently enroll in the Veteran's Educational Assistance Program. Several effects concerning recruiting programs would be possible since certain survey data pertaining to the recruiting process (specifically, desired branch of service, responsiveness to advertising media, and manner of and demand for recruiter contact) appeared to be entry age dependent.

As previously noted, potential problems exist in obtaining the quantity and quality of manpower required to meet future military manpower needs. One way to overcome any potential shortfall in quantity is to access larger numbers of older individuals. Such a policy would also significantly improve the quality of military manpower.

The cost effectiveness of recruiting larger numbers of older individuals was not examined in this study. Analysis indicated that recruiting larger numbers of older individuals could alleviate potential problems in recruiting the necessary quantity and quality of future military manpower, but analysis also revealed that such a policy could have an effect upon personnel costs and recruiting programs. Further study is needed to assess whether the performance of older individuals is consistent with indicators of improved quality, and if so, whether the benefits outweigh any additional costs of recruiting and retaining larger numbers of older individuals.

APPENDIX A

TABLES--INDIVIDUAL CHARACTERISTICS AND FAMILY BACKGROUND

TABLE A-1

ENTRY AGE, AGE COHORT 25-35

Sample Mean = 27.00 Years

<u>Entry Age</u>	<u>Number of Respondents</u>	<u>Percent of Total</u>
25	342	32.7
26	206	19.7
27	202	19.3
28	77	7.4
29	65	6.2
30	63	6.0
31	25	2.4
32	25	2.4
33	19	1.8
34	18	1.7
35	4	0.4
Total	1046	100.0

TABLE A-2

## ENTRY AGE BY SEX

Sample Mean = 19.16 Years - Males  
= 20.09 Years - Females

<u>Entry Age</u>	<u>Sample Size</u>	<u>Males</u> *	<u>Females</u> *
17	2983	86.1	13.9
18	7505	81.7	18.3
19	4173	79.2	20.8
20	2248	75.0	25.0
21	1326	71.2	28.8
22	998	68.2	31.8
23	674	68.1	31.9
24	483	65.4	34.6
25-35	1041	59.7	40.3
Total	21431	78.0	22.0

\* Percent within entry age cohort

TABLE A-3  
ENTRY AGE BY RACE

Sample Mean = 19.24 Years - Whites  
= 19.63 Years - Blacks  
= 19.54 Years - Hispanics

<u>Entry Age</u>	<u>Sample Size</u>	<u>Whites*</u>	<u>Blacks*</u>	<u>Hispanics*</u>
17	2857	76.6	16.0	7.4
18	7199	72.3	20.8	6.9
19	3982	67.2	24.8	8.1
20	2130	65.2	26.6	8.2
21	1272	63.8	26.3	9.9
22	950	64.3	27.3	8.4
23	648	63.0	28.2	8.8
24	460	67.6	23.5	8.9
25-35	965	64.5	26.7	8.8
Total	20463	69.5	22.7	7.8

\* Percent within entry age cohort



TABLE A-4

## ENTRY AGE BY BRANCH OF SERVICE

Sample Mean = 19.50 Years - Army

= 19.14 Years - Navy

= 19.66 Years - Air Force

= 18.71 Years - Marines

<u>Entry Age</u>	<u>Sample Size</u>	<u>Army</u> *	<u>Navy</u> *	<u>Air Force</u> *	<u>Marines</u> *
17	2986	37.0	27.2	19.3	16.5
18	7521	43.3	21.5	22.2	13.0
19	4173	42.3	22.5	23.5	11.7
20	2252	45.3	19.9	25.4	9.4
21	1327	46.3	20.3	25.5	8.0
22	997	44.3	20.2	29.0	6.5
23	673	44.4	17.2	31.4	7.0
24	482	41.5	20.5	32.4	5.6
25-35	1044	51.3	15.9	29.1	3.6
Total	21455	43.0	21.8	23.7	11.5

\* Percent within entry age cohort

TABLE A-5  
MARITAL STATUS

Sample Mean = 8 (% Married)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
Entry Age			
17	2669		2
18	6778		2
19	3747		5
20	1981		11
21	1198		15
22	893		20
23	613		22
24	432		26
25-35	910		36
Sex			
MALE	14911	8	
FEMALE	4310	10	
Race			
WHITE	13557	8	
BLACK	4267	7	
HISPANIC	1397	12	
Service			
ARMY	8008	10	
NAVY	4277	4	
AIR FORCE	4726	12	
MARINES	2210	3	

TABLE A-6  
MARRIED: YEARS OF MARRIAGE

Sample Mean = 1.64 (Years)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
17	39		0.66
18	146		0.76
19	195		0.99
20	222		1.17
21	176		1.56
22	173		1.83
23	134		2.10
24	115		2.19
25-35	329		2.41
Sex			
MALE	1094	1.51	
FEMALE	435	1.97	
Race			
WHITE	1079	1.56	
BLACK	288	1.82	
HISPANIC	162	1.84	
Service			
ARMY	765	1.69	
NAVY	151	1.42	
AIR FORCE	552	1.68	
MARINES	61	1.31	

TABLE A-7

## MARRIED: NUMBER OF CHILDREN

Sample Mean = 0.75 (Children)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	39		0.27
18	149		0.41
19	197		0.50
20	225		0.56
21	178		0.61
22	174		0.82
23	133		0.99
24	115		0.87
25-35	330		1.14
Sex			
MALE	1104	0.75	
FEMALE	436	0.76	
Race			
WHITE	1079	0.69	
BLACK	299	0.91	
HISPANIC	162	0.88	
Service			
ARMY	774	0.83	
NAVY	154	0.66	
AIR FORCE	551	0.74	
MARINES	61	0.23	

TABLE A-8

MARRIED: SPOUSE WAS ON OR PLANNED TO ENTER ACTIVE DUTY

Sample Mean = 18 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	39		30
18	142		22
19	195		19
20	219		19
21	170		20
22	168		19
23	123		15
24	110		15
25-35	308		14
Sex			
MALE	1049	6	
FEMALE	425	46	
Race			
WHITE	1045	18	
BLACK	276	21	
HISPANIC	153	11	
Service			
ARMY	733	11	
NAVY	146	12	
AIR FORCE	533	28	
MARINES	62	21	

TABLE A-9

NOT MARRIED: ENGAGED TO BE MARRIED

Sample Mean = 27 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2587		29
18	6513		27
19	3470		27
20	1724		28
21	997		29
22	705		23
23	472		22
24	313		24
25-35	567		23
Sex			
MALE	13523	29	
FEMALE	3825	20	
Race			
WHITE	12296	25	
BLACK	3850	33	
HISPANIC	1202	30	
Service			
ARMY	7072	29	
NAVY	4057	24	
AIR FORCE	4120	26	
MARINES	2099	29	

TABLE A-10  
NUMBER OF DEPENDENTS

Sample Mean = 0.25 (Dependents)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	748		0.11
18	2424		0.11
19	1456		0.17
20	848		0.26
21	481		0.36
22	372		0.46
23	270		0.57
24	168		0.61
25-35	387		0.95
Sex			
MALE	5548	0.25	
FEMALE	1606	0.24	
Race			
WHITE	5314	0.22	
BLACK	1433	0.31	
HISPANIC	407	0.41	
Service			
ARMY	2846	0.32	
NAVY	1553	0.14	
AIR FORCE	1908	0.29	
MARINES	847	0.16	

TABLE A-11  
TOWN OR CITY OF RESIDENCE

Sample Mean = 21% Rural Town  
= 33% Small City  
= 24% Medium City  
= 23% Large City

Entry Age	Sample Size	Rural Town*	Small City*	Medium City*	Large City*
17	1319	22	33	25	21
18	3372	23	35	24	19
19	1903	22	32	24	23
20	976	20	31	25	25
21	623	18	34	24	26
22	463	17	30	25	29
23	301	18	33	21	29
24	217	20	25	25	31
25-35	498	14	30	23	34

\* Percent within entry age cohort after adjusting for the effects of sex, race, and branch of service



TABLE A-12  
SHARE OF EXPENSES PAID

Sample Mean = 67 (% Paid)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2457		49
18	6329		56
19	3452		69
20	1856		79
21	1112		83
22	837		84
23	589		86
24	413		87
25-35	862		89
Sex			
MALE	1854	67	
FEMALE	4053	68	
Race			
WHITE	12811	69	
BLACK	3885	64	
HISPANIC	1211	64	
Service			
ARMY	7324	67	
NAVY	4006	67	
AIR FORCE	4513	71	
MARINES	2064	62	

TABLE A-13

## SAVINGS

Sample Mean = \$309

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	544		223
18	1621		288
19	916		314
20	477		334
21	285		286
22	231		330
23	149		433
24	88		381
25-35	226		492
Sex			
MALE	3438	316	
FEMALE	1101	286	
Race			
WHITE	3271	354	
BLACK	995	186	
HISPANIC	273	216	
Service			
ARMY	1784	260	
NAVY	1011	335	
AIR FORCE	1175	370	
MARINES	569	291	

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AN EMPIRICAL ANALYSIS OF THE DECISION TO ENTER MILITARY  
SERVICE BASED ON AGE AT SERVICE ENTRY(U) NAVAL  
POSTGRADUATE SCHOOL MONTEREY CA R W STANLEY JUN 83

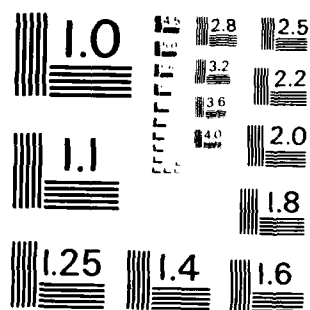
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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS - 1963 - A

TABLE A-14  
PHYSICAL CONDITION

Sample Mean = 4.52 (Condition\*)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1415		4.45
18	3489		4.54
19	1870		4.54
20	1047		4.54
21	596		4.53
22	453		4.45
23	319		4.61
24	227		4.47
25-35	444		4.47
Sex			
MALE	7745	4.57	
FEMALE	2115	4.35	
Race			
WHITE	6904	4.46	
BLACK	2189	4.71	
HISPANIC	767	4.57	
Service			
ARMY	4192	4.53	
NAVY	2168	4.49	
AIR FORCE	2400	4.51	
MARINES	1100	4.59	

\* 6 = Far Above Average  
 5 = Above Average  
 4 = Slightly Above Average  
 3 = Slightly Below Average  
 2 = Below Average  
 1 = Far Below Average

TABLE A-15  
LIVED WITH PARENT(S) OR GUARDIAN(S)

Sample Mean = 65% (Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2729		77
18	6886		75
19	3803		66
20	2042		59
21	1231		55
22	914		44
23	628		41
24	442		36
25-35	932		29
Sex			
MALE	15246	66	
FEMALE	4361	63	
Race			
WHITE	13756	66	
BLACK	4397	61	
HISPANIC	1454	67	
Service			
ARMY	8279	60	
NAVY	4335	69	
AIR FORCE	4768	67	
MARINES	2225	71	

TABLE A-16  
LIVED WITH PARENT(S) AT AGE 14

Sample Mean = 95 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2780		95
18	7003		96
19	3873		95
20	2063		95
21	1237		94
22	928		95
23	634		96
24	449		96
25-35	942		94
Sex			
MALE	15508	95	
FEMALE	4401	95	
Race			
WHITE	13911	96	
BLACK	4473	91	
HISPANIC	1525	95	
Service			
ARMY	8436	93	
NAVY	4381	96	
AIR FORCE	4819	97	
MARINES	2273	95	

TABLE A-17  
NUMBER OF STATES/COUNTRIES LIVED IN

Sample Mean = 2.22 (States/Countries)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1258		2.19
18	3139		2.12
19	1664		2.20
20	951		2.17
21	558		2.31
22	412		2.42
23	294		2.41
24	203		2.41
25-35	404		2.74
Sex			
MALE	6950	2.19	
FEMALE	1933	2.29	
Race			
WHITE	6310	2.40	
BLACK	1904	1.73	
HISPANIC	669	1.82	
Service			
ARMY	3687	2.13	
NAVY	1972	2.23	
AIR FORCE	2246	2.46	
MARINES	978	1.95	



TABLE A-18  
FATHER HAS BEEN ON ACTIVE DUTY

Sample Mean = 67 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1962		66
18	4670		67
19	2538		67
20	1359		67
21	813		68
22	596		67
23	424		67
24	321		64
25-35	623		70
Sex			
MALE	10403	67	
FEMALE	2903	67	
Race			
WHITE	9644	75	
BLACK	2721	49	
HISPANIC	941	39	
Service			
ARMY	5485	62	
NAVY	3002	71	
AIR FORCE	3341	74	
MARINES	1478	62	

TABLE A-19  
NUMBER OF SIBLINGS

Sample Mean = 3.91 (Siblings)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2058		3.98
18	4956		3.86
19	2700		3.99
20	1444		3.89
21	869		3.94
22	636		4.02
23	455		3.81
24	335		3.94
25-35	652		3.67
Sex			
MALE	11005	3.86	
FEMALE	3100	4.07	
Race			
WHITE	9982	3.53	
BLACK	3105	4.86	
HISPANIC	1018	4.64	
Service			
ARMY	5938	4.25	
NAVY	3149	3.65	
AIR FORCE	3464	3.58	
MARINES	1554	3.85	

TABLE A-20

## NUMBER OF SIBLINGS WHO HAVE BEEN ON ACTIVE DUTY

Sample Mean = 0.51 (Siblings)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1985		0.53
18	4797		0.47
19	2633		0.49
20	1401		0.51
21	840		0.53
22	619		0.57
23	430		0.54
24	324		0.66
25-35	619		0.67
Sex			
MALE	10636	0.49	
FEMALE	3012	0.59	
Race			
WHITE	9667	0.46	
BLACK	2998	0.68	
HISPANIC	983	0.52	
Service			
ARMY	5733	0.58	
NAVY	3052	0.47	
AIR FORCE	3360	0.45	
MARINES	1503	0.45	

TABLE A-21  
1978 FAMILY INCOME

Sample Mean = \$15,808

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2288		15,417
18	5690		15,621
19	3069		15,669
20	1660		16,160
21	989		16,650
22	756		16,329
23	524		16,249
24	372		16,267
25-35	753		16,041
Sex			
MALE	12522	16,053	
FEMALE	3579	14,950	
Race			
WHITE	11586	17,620	
BLACK	3411	11,136	
HISPANIC	1104	11,230	
Service			
ARMY	6534	14,023	
NAVY	3620	17,031	
AIR FORCE	4122	17,610	
MARINES	1825	15,703	

TABLE A-22

## ANY 1978 FAMILY INCOME FROM PUBLIC ASSISTANCE

Sample Mean = 13 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2469		15
18	6288		13
19	3446		13
20	1848		13
21	1097		11
22	811		15
23	578		10
24	414		10
25-35	840		9
Sex			
MALE	13756	13	
FEMALE	4035	12	
Race			
WHITE	12692	9	
BLACK	3874	24	
HISPANIC	1225	20	
Service			
ARMY	7319	17	
NAVY	3987	10	
AIR FORCE	4453	8	
MARINES	2032	15	

TABLE A-23  
FATHER'S EDUCATION

Sample Mean = 11.93 (Years)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean	Level of Significance
ENTRY AGE				.427
17	865		11.74	
18	2118		11.91	
19	1088		11.97	
20	609		12.05	
21	344		12.10	
22	252		11.91	
23	205		11.79	
24	142		11.95	
25-35	261		12.18	
Sex				.026
MALE	4658	11.98		
FEMALE	1226	11.76		
Race				<.001
WHITE	4641	12.24		
BLACK	902	10.96		
HISPANIC	341	10.27		
Service				<.001
ARMY	2177	11.46		
NAVY	1383	12.15		
AIR FORCE	1650	12.37		
MARINES	674	11.94		

TABLE A-24  
MOTHER'S EDUCATION

Sample Mean = 11.81 (Years)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean	Level of Significance
ENTRY AGE				.746
17	946		11.74	
18	2365		11.79	
19	1236		11.80	
20	690		11.93	
21	388		11.91	
22	298		11.73	
23	227		11.85	
24	165		11.94	
25-35	292		11.80	
Sex				<.001
MALE	5082	11.87		
FEMALE	1525	11.58		
Race				<.001
WHITE	4971	12.02		
BLACK	1293	11.56		
HISPANIC	343	9.65		
Service				<.001
ARMY	2494	11.55		
NAVY	1518	11.93		
AIR FORCE	1837	12.07		
MARINES	758	11.78		

APPENDIX B  
TABLES--EDUCATIONAL BACKGROUND

TABLE B-1

EDUCATION

Sample Mean = 11.79 (Years)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean	Level of Significance
ENTRY AGE				<.001
17	2709		11.04	
19	6838		11.60	
19	3768		11.79	
20	1984		11.95	
21	1194		12.16	
22	900		12.29	
23	615		12.69	
24	433		12.82	
25-35	913		12.59	
Sex				<.001
MALE	15065	11.69		
FEMALE	4289	12.14		
Race				<.001
WHITE	13582	11.73		
BLACK	4334	11.95		
HISPANIC	1438	11.80		
Service				<.001
ARMY	8117	11.56		
NAVY	4299	11.75		
AIR FORCE	4719	12.20		
MARINES	2219	11.82		



TABLE B-2  
SCHOOL GRADE POINT AVERAGE

Sample Mean = 2.48 (GPA\*)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2688		2.38
18	6815		2.49
19	3767		2.49
20	1982		2.48
21	1192		2.53
22	898		2.48
23	611		2.55
24	430		2.57
25-35	905		2.60
Sex			
MALE	14993	2.41	
FEMALE	4295	2.73	
Race			
WHITE	13552	2.48	
BLACK	4343	2.45	
HISPANIC	1393	2.53	
Service			
ARMY	8058	2.39	
NAVY	4285	2.47	
AIR FORCE	4728	2.66	
MARINES	2217	2.44	

\*  
4.0 = A  
3.0 = B  
2.0 = C  
1.0 = D  
0.0 = F

TABLE B-3  
HIGH SCHOOL MINIMUM COMPETENCY TEST

Sample Mean = 92 (% Passed)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	332		86
18	1010		94
19	590		91
20	267		90
21	162		93
22	103		94
23	88		97
24	57		90
25-35	129		96
Sex			
MALE	2148	91	
FEMALE	592	96	
Race			
WHITE	1574	92	
BLACK	904	93	
HISPANIC	262	93	
Service			
ARMY	1150	87	
NAVY	564	95	
AIR FORCE	659	98	
MARINES	367	95	

TABLE B-4  
SCHOOL STATUS

Sample Mean = 29 (% in School)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2718		42
18	6875		44
19	3782		24
20	2018		12
21	1211		11
22	900		9
23	618		5
24	436		8
25-35	924		7
Sex			
MALE	15131	30	
FEMALE	4351	27	
Race			
WHITE	13707	29	
BLACK	4323	30	
HISPANIC	1452	33	
Service			
ARMY	8196	26	
NAVY	4311	30	
AIR FORCE	4751	26	
MARINES	2224	45	

TABLE B-5

## MAIN REASON FOR DELAYED ENTRY: TO FINISH SCHOOL

Sample Mean = 25 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1711		39
18	4534		37
19	2323		20
20	1249		7
21	705		8
22	519		6
23	360		5
24	245		7
25-35	515		4
Sex			
MALE	9357	26	
FEMALE	2804	21	
Race			
WHITE	8606	23	
BLACK	2698	28	
HISPANIC	857	28	
Service			
ARMY	5370	21	
NAVY	2615	25	
AIR FORCE	2679	24	
MARINES	1497	38	

TABLE B-6

## VOCATIONAL/TECHNICAL/BUSINESS SCHOOL ATTENDANCE

Sample Mean = 25 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2667		19
18	6743		21
19	3741		24
20	1982		30
21	1190		34
22	893		34
23	604		32
24	424		35
25-35	901		37
Sex			
MALE	14882	24	
FEMALE	4263	26	
Race			
WHITE	13463	24	
BLACK	4283	28	
HISPANIC	1399	24	
Service			
ARMY	8010	27	
NAVY	4250	24	
AIR FORCE	4695	23	
MARINES	2190	21	

TABLE B-7  
JOB REQUIREMENTS FOR MENTAL SKILLS

Sample Mean = 2.40 (Level of Importance\*)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1332		2.33
18	3287		2.34
19	1783		2.39
20	986		2.44
21	563		2.47
22	425		2.52
23	305		2.56
24	217		2.59
25-35	417		2.62
Sex			
MALE	7283	2.39	
FEMALE	2032	2.43	
Race			
WHITE	6633	2.40	
BLACK	2023	2.41	
HISPANIC	659	2.42	
Service			
ARMY	3857	2.33	
NAVY	2083	2.42	
AIR FORCE	2337	2.50	
MARINES	1038	2.38	

\* 3 = Very Important  
2 = Somewhat Important  
1 = Not Important

TABLE B-8

## A REASON FOR ENLISTMENT: TO OBTAIN MONEY FOR COLLEGE

Sample Mean = 53 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2779		47
18	6999		51
19	3848		55
20	2060		55
21	1223		58
22	916		63
23	627		53
24	444		52
25-35	927		54
Sex			
MALE	15431	52	
FEMALE	4392	57	
Race			
WHITE	13890	50	
BLACK	4406	58	
HISPANIC	1527	62	
Service			
ARMY	8391	51	
NAVY	4366	49	
AIR FORCE	4803	60	
MARINES	2263	52	

TABLE B-9

## VETERAN'S EDUCATIONAL ASSISTANCE PROGRAM INTENTION

Sample Mean = 75 (% Planned Participation)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY			
17	676		67
18	1920		75
19	1110		77
20	544		77
21	362		78
22	267		77
23	200		78
24	120		80
24-35	313		74
SEX			
MALE	4163	72	
FEMALE	1349	85	
Race			
WHITE	3828	71	
BLACK	1264	83	
HISPANIC	420	83	
Service			
ARMY	2339	75	
NAVY	1192	71	
AIR FORCE	1330	78	
MARINES	651	76	



TABLE B-10  
FUTURE EDUCATION

Sample Mean = 14.18 (Years)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean	Level of Significance
ENTRY AGE				<.001
17	2580		13.37	
18	6510		13.82	
19	3567		14.13	
20	1869		14.48	
21	1123		14.80	
22	846		15.08	
23	577		15.49	
24	412		15.58	
25-35	842		15.69	
Sex				<.001
MALE	14282	14.03		
FEMALE	4044	14.70		
Race				<.001
WHITE	12942	14.13		
BLACK	4068	14.31		
HISPANIC	1316	14.20		
Service				<.001
ARMY	7604	13.69		
NAVY	4053	14.13		
AIR FORCE	4540	15.09		
MARINES	2129	14.06		

# APPENDIX C

## TABLES--CIVILIAN LABOR FORCE EXPERIENCE

TABLE C-1

### EMPLOYMENT STATUS

Sample Mean = 32 (% Employed)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2029		29
18	5581		34
19	3173		29
20	1715		32
21	1031		30
22	775		31
23	552		32
24	396		34
25-35	828		36
Sex			
MALE	12512	31	
FEMALE	3568	37	
Race			
WHITE	11863	35	
BLACK	3207	24	
HISPANIC	1010	29	
Service			
ARMY	6335	29	
NAVY	3680	33	
AIR FORCE	4247	36	
MARINES	1813	34	

TABLE C-2

## EMPLOYED: HOURS PER WEEK

Sample Mean = 34.8 (Hours)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean	Level of Significance
ENTRY AGE				<.001
17	591		29.9	
18	1901		31.0	
19	920		36.3	
20	539		39.0	
21	299		39.4	
22	239		39.4	
23	176		42.0	
24	138		41.9	
25-35	301		41.3	
Sex				<.001
MALE	3809	35.5		
FEMALE	1295	33.0		
Race				<.001
WHITE	4090	35.0		
BLACK	733	33.6		
HISPANIC	281	35.7		
Service				<.027
ARMY	1804	35.4		
NAVY	1200	34.5		
AIR FORCE	1494	34.7		
MARINES	606	34.4		

TABLE C-3

## EMPLOYED: HOURLY EARNINGS

Sample Mean = \$3.67

Variables	Sample Size	Unadjusted Mean	Adjusted Mean	Level of Significance
ENTRY AGE				<.001
17	537		3.08	
18	1752		3.26	
19	839		3.65	
20	477		4.07	
21	273		4.18	
22	213		4.32	
23	157		4.52	
24	128		4.80	
25-35	256		4.91	
Sex				<.001
MALE	3452	3.75		
FEMALE	1180	3.44		
Race				<.001
WHITE	3766	3.67		
BLACK	612	3.63		
HISPANIC	254	3.79		
Service				.800
ARMY	1602	3.68		
NAVY	1100	3.65		
AIR FORCE	1384	3.72		
MARINES	546	3.58		

TABLE C-4  
PREVIOUS CIVILIAN JOB CLASSIFICATION

Number of Responses	Percent	Category
601	8	sales worker
785	10	office and clerical worker
1592	21	service worker
1343	18	trades or crafts worker
702	9	machine or transportation operator
1423	19	laborer (other than farm)
158	2	farm laborer
267	4	professional
357	5	technical
172	2	owner or proprietor
132	2	manager or administrator (other than farm)
39	1	farm manager

TABLE C-5

## PREVIOUS CIVILIAN JOB CLASSIFICATION: OFFICE AND CLERICAL WORKER

Sample Mean = 10 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	899		7
18	2248		8
19	1311		11
20	707		11
21	455		12
22	346		12
23	230		11
24	199		13
25-35	370		12
Sex			
MALE	5321	5	
FEMALE	1444	29	
Race			
WHITE	5028	8	
BLACK	1320	19	
HISPANIC	417	16	
Service			
ARMY	2684	11	
NAVY	1585	8	
AIR FORCE	1804	11	
MARINES	692	8	

TABLE C-6

## PREVIOUS CIVILIAN JOB CLASSIFICATION: SERVICE WORKER

Sample Mean = 21 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	899		30
18	2248		27
19	1311		20
20	707		15
21	455		14
22	346		15
23	230		12
24	199		11
25-35	370		8
Sex			
MALE	5321	18	
FEMALE	1444	32	
Race			
WHITE	5028	22	
BLACK	1320	21	
HISPANIC	417	18	
Service			
ARMY	2684	22	
NAVY	1585	22	
AIR FORCE	1804	20	
MARINES	692	18	

TABLE C-7  
HAVE BEEN EMPLOYED 30 HOURS PER WEEK

Sample Mean = 88 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2113		80
18	5832		83
19	3313		90
20	1797		93
21	1078		95
22	811		96
23	575		97
24	407		97
25-35	846		97
Sex			
MALE	13119	89	
FEMALE	3653	85	
Race			
WHITE	12307	89	
BLACK	3392	84	
HISPANIC	1073	86	
Service			
ARMY	6709	88	
NAVY	3821	88	
AIR FORCE	4358	89	
MARINES	1884	87	



TABLE C-8  
NUMBER OF EMPLOYERS

Sample Mean = 3.1 (Employers)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1575		2.3
18	4217		2.7
19	2372		3.2
20	1288		3.5
21	787		3.8
22	573		3.9
23	420		4.0
24	308		4.2
25-35	604		4.3
Sex			
MALE	9552	3.1	
FEMALE	2592	3.1	
Race			
WHITE	8950	3.2	
BLACK	2412	2.9	
HISPANIC	782	3.0	
Service			
ARMY	4861	3.1	
NAVY	2777	3.1	
AIR FORCE	3193	3.2	
MARINES	1313	2.9	

TABLE C-9

## HAVE BEEN EMPLOYED IN GOVERNMENT SPONSORED PROGRAM

Sample Mean = 14 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1766		17
18	4875		15
19	2684		15
20	1412		13
21	861		11
22	630		9
23	441		10
24	300		9
25-35	670		9
Sex			
MALE	10453	14	
FEMALE	3186	14	
Race			
WHITE	9646	10	
BLACK	3073	27	
HISPANIC	920	18	
Service			
ARMY	5618	18	
NAVY	2996	12	
AIR FORCE	3434	10	
MARINES	1591	14	

TABLE C-10

## HAVE RECEIVED UNEMPLOYMENT COMPENSATION

Sample Mean = 10 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	949		1
18	2728		3
19	1590		7
20	825		14
21	520		20
22	395		22
23	270		30
24	185		27
25-35	424		39
Sex			
MALE	6060	10	
FEMALE	1826	10	
Race			
WHITE	5792	10	
BLACK	1584	11	
HISPANIC	510	9	
Service			
ARMY	3092	12	
NAVY	1787	9	
AIR FORCE	2089	10	
MARINES	918	7	

TABLE C-11  
1978 EARNINGS

Sample Mean = \$2467

Variables	Sample Size	Unadjusted Mean	Adjusted Mean	Level of Significance
ENTRY AGE				<.001
17	2415		\$936	
18	6248		1442	
19	3419		2329	
20	1820		3518	
21	1107		4059	
22	820		4327	
23	581		4880	
24	406		5408	
25-35	857		5702	
Sex				<.001
MALE	13705	\$2580		
FEMALE	3968	2076		
Race				<.001
WHITE	12650	2704		
BLACK	3838	1822		
HISPANIC	1185	2025		
Service				<.001
ARMY	7217	2287		
NAVY	3971	2467		
AIR FORCE	4469	2937		
MARINES	2016	2068		

TABLE C-12

## HAVE BEEN FIRED FROM A JOB

Sample Mean = 18 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	292		17
18	1047		16
19	654		18
20	380		20
21	220		22
22	156		23
23	129		16
24	83		20
25-35	170		19
Sex			
MALE	2475	20	
FEMALE	656	14	
Race			
WHITE	2357	20	
BLACK	588	14	
HISPANIC	186	15	
Service			
ARMY	1260	18	
NAVY	675	20	
AIR FORCE	867	16	
MARINES	329	23	

TABLE C-13  
HAVE BEEN LAID OFF FROM A JOB

Sample Mean = 28 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	295		23
18	1056		23
19	658		26
20	379		31
21	221		36
22	157		40
23	131		35
24	83		32
25-35	170		38
Sex			
MALE	2493	30	
FEMALE	657	18	
Race			
WHITE	2367	28	
BLACK	595	27	
HISPANIC	188	28	
Service			
ARMY	1269	29	
NAVY	679	28	
AIR FORCE	868	25	
MARINES	334	27	

TABLE C-14

## HAVE QUIT A JOB DUE TO INSUFFICIENT PAY

Sample Mean = 37 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1353		28
18	3683		32
19	2164		37
20	1197		43
21	731		43
22	539		45
23	401		49
24	292		49
25-35	572		45
Sex			
MALE	8587	38	
FEMALE	2345	34	
Race			
WHITE	8113	40	
BLACK	2108	30	
HISPANIC	711	33	
Service			
ARMY	4374	36	
NAVY	2489	37	
AIR FORCE	2914	39	
MARINES	1155	36	

TABLE C-15

## HAVE QUIT A JOB DUE TO POOR ADVANCEMENT OPPORTUNITY

Sample Mean = 31 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1352		20
18	3680		26
19	2165		31
20	1196		37
21	732		38
22	538		39
23	402		46
24	292		43
25-35	572		41
Sex			
MALE	8582	31	
FEMALE	2347	30	
Race			
WHITE	3111	33	
BLACK	2104	24	
HISPANIC	714	26	
Service			
ARMY	4369	29	
NAVY	2488	31	
AIR FORCE	2919	36	
MARINES	1153	29	



TABLE C-16

## A REASON FOR ENLISTMENT: INABILITY TO OBTAIN CIVILIAN EMPLOYMENT

Sample Mean = 16 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2770		15
18	6978		14
19	3839		17
20	2055		18
21	1223		19
22	912		20
23	621		17
24	443		17
25-35	920		17
Sex			
MALE	15377	17	
FEMALE	4384	15	
Race			
WHITE	13863	15	
BLACK	4374	21	
HISPANIC	1524	20	
Service			
ARMY	8378	21	
NAVY	4349	14	
AIR FORCE	4785	12	
MARINES	2249	12	

TABLE C-17

## A REASON FOR ENLISTMENT: TO EARN MORE MONEY

Sample Mean = 32 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2769		36
18	6966		33
19	3838		32
20	2042		30
21	1224		30
22	907		27
23	617		29
24	440		25
25-35	919		28
Sex			
MALE	15351	30	
FEMALE	4371	38	
Race			
WHITE	13843	31	
BLACK	4356	36	
HISPANIC	1523	35	
Service			
ARMY	8362	36	
NAVY	4344	29	
AIR FORCE	4776	29	
MARINES	2240	29	

TABLE C-18

## JOB CHARACTERISTIC: STEADY EMPLOYMENT

Sample Mean = 2.81 (Level of Importance\*)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1345		2.80
18	3321		2.82
19	1791		2.81
20	995		2.82
21	562		2.80
22	433		2.82
23	311		2.75
24	219		2.76
25-35	422		2.79
Sex			
MALE	7360	2.80	
FEMALE	2039	2.83	
Race			
WHITE	6674	2.81	
BLACK	2060	2.83	
HISPANIC	665	2.77	
Service			
ARMY	3912	2.79	
NAVY	2098	2.82	
AIR FORCE	2340	2.83	
MARINES	1049	2.81	

\* 3 = Very Important, 2 = Somewhat Important,  
1 = Not Important

TABLE C-19

## MILITARY JOB SIMILAR TO FORMER CIVILIAN JOB

Sample Mean = 20 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	777		15
18	1776		18
19	1014		21
20	504		21
21	339		22
22	236		22
23	157		32
24	127		22
25-35	259		29
Sex			
MALE	4051	20	
FEMALE	1138	20	
Race			
WHITE	3585	20	
BLACK	1193	19	
HISPANIC	411	19	
Service			
ARMY	2282	20	
NAVY	1158	21	
AIR FORCE	1206	18	
MARINES	543	18	

TABLE C-20

## INTENTION TO SEEK EMPLOYMENT IF INELIGIBLE TO ENLIST

Sample Mean = 84 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2428		78
18	6306		81
19	3441		85
20	1841		88
21	1108		86
22	829		91
23	574		92
24	417		93
25-35	849		92
Sex			
MALE	13746	84	
FEMALE	4047	81	
Race			
WHITE	12703	86	
BLACK	3914	77	
HISPANIC	1176	79	
Service			
ARMY	7288	85	
NAVY	3984	83	
AIR FORCE	4476	84	
MARINES	2045	81	

TABLE C-21  
ANTICIPATED ANNUAL EARNINGS IF NOT ENLISTING

Sample Mean = \$5033

Variables	Sample Size	Unadjusted Mean	Adjusted Mean	Level of Significance
ENTRY AGE				<.001
17	1162		3736	
18	3117		4407	
19	1758		4877	
20	893		5591	
21	566		5872	
22	430		6511	
23	284		6891	
24	204		6974	
25-35	457		7651	
Sex				<.001
MALE	6817	5299		
FEMALE	2054	4149		
Race				<.001
WHITE	6320	5304		
BLACK	1968	4308		
HISPANIC	583	4538		
Service				<.001
ARMY	3623	4676		
NAVY	1984	5092		
AIR FORCE	2230	5551		
MARINES	1034	5048		

TABLE C-22

ALTERNATIVE TO ENLISTING: CIVILIAN EMPLOYMENT  
PAYING \$500 PER MONTH

Sample Mean = 89 (% Enlisting Anyway)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1204		89
18	3229		87
19	1810		88
20	924		89
21	581		90
22	441		91
23	291		97
24	208		94
25-35	463		97
Sex			
MALE	7020	88	
FEMALE	2131	91	
Race			
WHITE	6490	91	
BLACK	2044	82	
HISPANIC	617	89	
Service			
ARMY	3768	86	
NAVY	2034	89	
AIR FORCE	2272	92	
MARINES	1077	90	

TABLE C-23

ALTERNATIVE TO ENLISTING: CIVILIAN EMPLOYMENT  
 PAYING \$700 PER MONTH

Sample Mean = 68 (% Enlisting Anyway)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1195		67
18	3227		65
19	1795		63
20	920		69
21	584		72
22	438		72
23	291		79
24	204		80
25-35	457		84
Sex			
MALE	6995	68	
FEMALE	2116	71	
Race			
WHITE	6461	71	
BLACK	2038	60	
HISPANIC	612	71	
Service			
ARMY	3746	66	
NAVY	2035	67	
AIR FORCE	2257	72	
MARINES	1073	72	



APPENDIX D  
TABLES--RECRUITING PROCESS

TABLE D-1  
 REQUESTED INFORMATION THROUGH TOLL FREE NUMBER

Sample Mean = 25 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	537		27
18	1563		25
19	899		24
20	466		26
21	285		25
22	219		23
23	147		20
24	90		24
25-35	213		25
Sex			
MALE	3369	26	
FEMALE	1050	22	
Race			
WHITE	3152	23	
BLACK	998	31	
HISPANIC	269	32	
Service			
ARMY	1774	29	
NAVY	979	26	
AIR FORCE	1106	20	
MARINES	560	25	

TABLE D-2

## REQUESTED INFORMATION THROUGH POSTCARD OR COUPON

Sample Mean = 29 (3 Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	535		40
18	1556		36
19	878		29
20	454		18
21	272		20
22	217		18
23	140		14
24	91		18
25-35	203		10
Sex			
MALE	3307	28	
FEMALE	1039	32	
Race			
WHITE	3101	26	
BLACK	983	36	
HISPANIC	262	39	
Service			
ARMY	1738	29	
NAVY	954	26	
AIR FORCE	1098	30	
MARINES	556	33	

TABLE D-3

## INITIAL CONTACT WITH RECRUITER

Sample Mean = 63% Contacted Recruiter at Office

= 15% Personally Contacted by Recruiter

= 22% Other Means

Entry Age	Sample Size	Contacted Recruiter At Office*	Personally Contacted By Recruiter*
17	1189	58	16
18	3195	53	21
19	1787	61	17
20	919	73	11
21	578	77	7
22	441	85	4
23	289	88	4
24	204	85	4
25-35	459	87	5

\*Percent within entry age cohort after adjusting for the effects of sex, race, and branch of service

TABLE D-4  
TALKED WITH ONLY ONE RECRUITER

Sample Mean = 50 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1163		48
18	3086		47
19	1695		49
20	857		52
21	557		57
22	415		55
23	269		56
24	194		63
25-35	384		54
Sex			
MALE	6615	50	
FEMALE	2005	50	
Race			
WHITE	6197	51	
BLACK	1847	45	
HISPANIC	576	54	
Service			
ARMY	3505	49	
NAVY	1928	50	
AIR FORCE	2168	54	
MARINES	1019	45	

TABLE D-5

## NUMBER OF BRANCHES OF SERVICE FOR WHICH TALKED WITH RECRUITER

Sample Mean = 1.49 (Branches of Service)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2624		1.53
18	6287		1.54
19	3424		1.48
20	1834		1.42
21	1100		1.40
22	833		1.40
23	578		1.43
24	421		1.41
25-35	856		1.48
Sex			
MALE	13689	1.48	
FEMALE	4068	1.53	
Race			
WHITE	12703	1.55	
BLACK	3899	1.35	
HISPANIC	1155	1.37	
Service			
ARMY	7429	1.39	
NAVY	4045	1.45	
AIR FORCE	4534	1.68	
MARINES	1749	1.57	

TABLE D-6

## INFORMATION PROVIDED BY RECRUITER ABOUT MILITARY JOB

Sample Mean = 3.10 (Amount of Information\*)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1595		3.16
18	3543		3.12
19	1959		3.12
20	1048		3.07
21	655		2.99
22	485		3.03
23	324		3.04
24	254		3.00
25-35	487		3.02
Sex			
MALE	8144	3.08	
FEMALE	2206	3.19	
Race			
WHITE	7200	3.13	
BLACK	2324	3.07	
HISPANIC	826	2.99	
Service			
ARMY	4485	3.09	
NAVY	2323	3.16	
AIR FORCE	2422	3.19	
MARINES	1120	2.87	

\*  
 4 = A Lot  
 3 = Some  
 2 = A Little  
 1 = None

TABLE D-7

## TIME BETWEEN RECRUITER CONTACT AND DECISION TO ENLIST

Sample Mean = 4.71 (Months)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean	Level of Significance
ENTRY AGE				<.001
17	1511		3.13	
18	4156		4.21	
19	2267		5.13	
20	1218		5.43	
21	732		6.53	
22	545		5.02	
23	383		6.12	
24	261		6.74	
25-35	601		4.80	
Sex				.641
MALE	8948	4.67		
FEMALE	2726	4.83		
Race				.011
WHITE	8447	4.71		
BLACK	2489	4.97		
HISPANIC	738	3.78		
Service				.241
ARMY	4683	4.56		
NAVY	2577	4.64		
AIR FORCE	3030	5.04		
MARINES	1384	4.57		

TABLE D-8

## TIME BETWEEN DECISION TO ENLIST AND ENTRY INTO ACTIVE DUTY

Sample Mean = 3.88 (Months)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean	Level of Significance
ENTRY AGE				<.001
17	1709		4.30	
18	4616		4.54	
19	2526		3.81	
20	1334		3.10	
21	804		2.73	
22	597		2.74	
23	420		3.06	
24	289		2.93	
25-35	645		2.97	
Sex				<.001
MALE	9934	3.63		
FEMALE	3006	4.70		
Race				.004
WHITE	9252	3.80		
BLACK	2858	4.17		
HISPANIC	830	3.81		
Service				<.001
ARMY	5281	3.66		
NAVY	2833	4.11		
AIR FORCE	3294	3.79		
MARINES	1532	4.39		



TABLE D-9

## ARMED SERVICES VOCATIONAL APTITUDE BATTERY TESTS TAKEN

Sample Mean = 1.29 (AVSABs)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1200		1.22
18	3176		1.25
19	1774		1.34
20	902		1.41
21	576		1.44
22	428		1.24
23	237		1.30
24	202		1.23
25-35	454		1.21
Sex			
MALE	6890	1.26	
FEMALE	2109	1.37	
Race			
WHITE	6414	1.25	
BLACK	1984	1.38	
HISPANIC	601	1.33	
Service			
ARMY	3666	1.33	
NAVY	2017	1.28	
AIR FORCE	2246	1.26	
MARINES	1070	1.20	

TABLE D-10

ALTERNATIVE IF INELIGIBLE TO ENLIST IN BRANCH OF SERVICE  
ENTERED: ENLIST IN ANOTHER BRANCH OF SERVICE

Sample Mean = 72 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1204		76
18	3183		74
19	1771		71
20	894		71
21	580		71
22	430		73
23	284		72
24	205		62
25-35	452		60
Sex			
MALE	6895	72	
FEMALE	2108	71	
Race			
WHITE	6400	71	
BLACK	2002	73	
HISPANIC	601	73	
Service			
ARMY	3664	73	
NAVY	2011	75	
AIR FORCE	2261	66	
MARINES	1067	71	

TABLE D-11  
CONSIDERATION OF RESERVES OR NATIONAL GUARD

Sample Mean = 28 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1339		23
18	3059		28
19	1678		29
20	891		29
21	565		29
22	419		32
23	282		28
24	229		29
25-35	426		33
Sex			
MALE	6947	29	
FEMALE	1941	26	
Race			
WHITE	6346	28	
BLACK	1898	30	
HISPANIC	644	26	
Service			
ARMY	3697	31	
NAVY	2031	25	
AIR FORCE	2190	24	
MARINES	970	33	

# APPENDIX E

## TABLES--ENLISTMENT CHARACTERISTICS AND PERCEPTIONS

TABLE E-1

### ACTIVE DUTY OBLIGATION

Sample Mean = 3.79 (Years)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2802		3.75
18	7076		3.79
19	3910		3.79
20	2090		3.79
21	1258		3.81
22	942		3.80
23	639		3.81
24	448		3.77
25-35	950		3.86
Sex			
MALE	15668	3.80	
FEMALE	4447	3.74	
Race			
WHITE	14013	3.87	
BLACK	4539	3.59	
HISPANIC	1563	3.60	
Service			
ARMY	8599	3.35	
NAVY	4395	4.20	
AIR FORCE	4847	4.24	
MARINES	2274	3.68	

TABLE E-2  
TOTAL MILITARY OBLIGATION

Sample Mean = 5.36 (Years)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1293		5.38
18	3342		5.36
19	1896		5.36
20	981		5.32
21	620		5.42
22	463		5.35
23	303		5.43
24	213		5.50
25-35	486		5.22
Sex			
MALE	7411	5.40	
FEMALE	2186	5.24	
Race			
WHITE	6763	5.53	
BLACK	2125	4.95	
HISPANIC	709	5.01	
Service			
ARMY	3979	5.01	
NAVY	2139	5.66	
AIR FORCE	2358	5.60	
MARINES	1121	5.55	

TABLE E-3  
BRANCH OF SERVICE

Sample Mean = 42.7% - Army  
                   = 21.9% - Navy  
                   = 24.0% - Air Force  
                   = 11.4% - Marines

Entry Age	Sample Size	Army*	Navy*	Air Force*	Marines*
17	2835	39	26	19	15
18	7150	44	21	22	12
19	3946	42	23	24	11
20	2113	44	21	26	9
21	1265	44	22	26	8
22	946	43	21	29	7
23	643	42	18	32	7
24	455	42	20	32	6
25-35	958	49	17	30	4

\* Percent within entry age cohort after adjusting for the effects of sex and race

TABLE E-4  
DELAYED ENTRY PROGRAM

Sample Mean = 85 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2796		88
18	7080		88
19	3893		84
20	2089		82
21	1246		82
22	935		78
23	633		79
24	453		81
25-35	947		78
Sex			
MALE	15634	84	
FEMALE	4438	89	
Race			
WHITE	14033	86	
BLACK	4500	84	
HISPANIC	1539	79	
Service			
ARMY	8524	90	
NAVY	4420	82	
AIR FORCE	4847	76	
MARINES	2281	90	

TABLE E-5  
MONTHS IN DELAYED ENTRY PROGRAM

Sample Mean = 3.22 (Months)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean	Level Of Significance
ENTRY AGE				<.001
17	1875		3.25	
18	5089		3.81	
19	2459		2.99	
20	1245		2.65	
21	736		2.47	
22	532		2.39	
23	363		2.38	
24	274		2.69	
25-35	546		2.53	
Sex				<.001
MALE	9727	3.64		
FEMALE	3392	3.95		
Race				.163
WHITE	9423	3.79		
BLACK	2775	3.54		
HISPANIC	921	3.53		
Service				<.001
ARMY	5709	3.29		
NAVY	2661	4.19		
AIR FORCE	3274	3.53		
MARINES	1475	4.92		



TABLE E-6

## ENTRY GRADE

Sample Mean = 87.6% - E-1  
               = 3.8% - E-2  
               = 7.6% - E-3  
               = 1.0% - E-4 - E-5

Entry Age	Sample Size	E-1*	E-2*	E-3*	E-4 - E-5*
17	1185	93	3	5	0
18	3003	90	4	6	0
19	1764	90	4	7	0
20	884	87	5	8	1
21	593	87	5	8	1
22	443	84	3	11	3
23	288	77	3	18	3
24	197	80	4	13	4
25-35	459	72	4	21	5

\* Percent within entry age cohort after adjusting for the effects of sex, race, and branch of service

TABLE E-7  
ENLISTMENT BONUS

Sample Mean = 17 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	633		16
18	1678		16
19	1040		18
20	567		19
21	365		18
22	297		14
23	195		15
24	132		17
25-35	328		19
Sex			
MALE	4271	19	
FEMALE	964	10	
Race			
WHITE	3687	15	
BLACK	1190	23	
HISPANIC	358	20	
Service			
ARMY	2415	26	
NAVY	941	9	
AIR FORCE	1225	2	
MARINES	654	24	

TABLE E-8  
AMOUNT OF ENLISTMENT BONUS

Sample Mean = \$2186

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	97		2200
18	282		2084
19	185		2233
20	97		2199
21	62		2208
22	33		2294
23	24		2297
24	21		2351
25-35	53		2297
Sex			
MALE	766	2221	
FEMALE	90	1889	
Race			
WHITE	531	2186	
BLACK	256	2130	
HISPANIC	69	2312	
Service			
ARMY	621	2337	
NAVY	67	1463	
AIR FORCE	21	1143	
MARINES	147	2027	

TABLE E-9  
GUARANTEED LOCATION

Sample Mean = 39 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1402	.	38
18	3460		38
19	1858		42
20	1041		39
21	593		39
22	445		37
23	315		35
24	226		37
25-35	443		39
Sex			
MALE	7686	41	
FEMALE	2097	30	
Race			
WHITE	6845	35	
BLACK	2175	46	
HISPANIC	763	47	
Service			
ARMY	4177	68	
NAVY	2135	20	
AIR FORCE	2391	15	
MARINES	1080	15	

TABLE E-10  
EXPECTED LOCATION

Sample Mean = 73.2% - In the U.S.  
= 22.0% - Overseas  
= 4.7% - At Sea

Entry Age	Sample Size	In The U.S.*	Overseas*	At Sea*
17	1174	73	22	6
18	3007	74	21	5
19	1556	71	24	5
20	889	73	21	6
21	497	68	28	4
22	385	75	21	4
23	278	72	23	5
24	199	78	18	4
25-35	371	76	20	4

\* Percent within entry age cohort after adjusting for the effects of sex, race, and branch of service

TABLE E-11  
MOST IMPORTANT REASON FOR ENLISTING

Sample Mean = 20.6% - Get Away From Home  
 = 22.1% - Better Oneself  
 = 9.1% - Serve Country  
 = 15.6% - Prove Oneself  
 = 15.9% - Receive Training  
 = 16.5% - Other

Entry Age	Sample Size	Get Away From Home*	Better Self*	Serve Country*	Prove Self*	Receive Training
17	2783	23	22	11	14	17
18	7015	24	20	10	14	18
19	3853	20	22	8	16	17
20	2064	20	22	8	19	15
21	1243	18	26	7	19	13
22	927	18	28	7	19	14
23	634	16	25	10	19	12
24	450	16	24	8	21	13
25-35	938	14	27	10	19	12

\* Percent within entry age cohort after adjusting for the effects of sex, race, and branch of service

TABLE E-12  
REASONS FOR ENLISTING

<u>Reason</u>	<u>Number of Responses</u>	<u>Percent of Positive Responses</u>
Couldn't Find Job	19761	17.6
Get Away From Home	19802	54.8
Better Oneself	20024	96.1
Travel	19837	78.8
Personal Problem	19678	8.2
Serve Country	19672	83.8
Earn More Money	19722	32.9
Family Tradition	19648	11.4
Prove Oneself	19486	52.6
Receive Training	19998	91.2
Money For College	19823	52.4

TABLE E-13

## MAIN REASON FOR DELAYED ENTRY

Sample Mean = 24.7% - Finish School  
 = 26.0% - Mil. Job/Location  
 = 29.2% - Personal Affairs  
 = 12.4% - Time Off  
 = 7.7% - Other

Entry Age	Sample Size	Finish School*	Mil. Job/Location*	Personal Affairs*	Time Off*
17	1711	39	22	19	13
18	4534	37	20	22	14
19	2323	20	28	31	12
20	1249	7	34	39	10
21	705	8	33	40	10
22	519	6	31	43	9
23	360	5	34	45	6
24	245	7	38	42	6
25-35	515	4	36	44	4

\* Percent within entry age cohort after adjusting for the effects of sex, race, and branch of service



TABLE E-14  
DESIRED ACTIVE DUTY OBLIGATION

Sample Mean = 3.36 (Years)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1218		3.46
18	3562		3.31
19	1962		3.33
20	1053		3.30
21	602		3.38
22	456		3.40
23	314		3.44
24	201		3.41
25-35	466		3.58
Sex			
MALE	7587	3.41	
FEMALE	2247	3.19	
Race			
WHITE	6868	3.34	
BLACK	2235	3.38	
HISPANIC	731	3.51	
Service			
ARMY	4113	3.11	
NAVY	2111	3.62	
AIR FORCE	2431	3.59	
MARINES	1179	3.31	

TABLE E-15

## DESIRED BRANCH OF SERVICE

Sample Mean = 35.0% - Army  
 = 22.1% - Navy  
 = 30.7% - Air Force  
 = 12.1% - Marines

Entry Age	Sample Size	Army*	Navy*	Air Force*	Marines*
17	2839	32	26	26	16
18	7137	36	21	29	13
19	3945	34	23	31	12
20	2110	36	21	33	10
21	1258	35	22	33	9
22	938	35	20	38	7
23	642	35	18	39	8
24	457	34	21	38	7
25-35	956	41	17	36	6

\* Percent within entry age cohort after adjusting for the effects of sex and race

TABLE E-16

ALTERNATIVE IF NO ENLISTMENT BONUS: ENLIST  
FOR THE SAME JOB ANYWAY

Sample Mean = 72 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	100		70
18	292		75
19	190		68
20	105		77
21	62		70
22	35		71
23	25		77
24	20		49
25-35	55		69
Sex			
MALE	792	70	
FEMALE	92	83	
Race			
WHITE	352	77	
BLACK	266	61	
HISPANIC	66	70	
Service			
ARMY	627	69	
NAVY	80	80	
AIR FORCE	26	73	
MARINES	151	77	

TABLE E-17  
DESIRED LOCATION

Sample Mean = 66.2% - In the U.S.  
= 29.5% - Overseas  
= 4.4% - At Sea

Entry Age	Sample Size	In The U.S.*	Overseas*	At Sea*
17	1035	64	31	4
18	2638	66	28	4
19	1379	67	28	4
20	772	67	28	4
21	437	62	33	3
22	325	69	28	3
23	251	64	29	5
24	176	67	30	2
25-35	317	68	29	2

\* Percent within entry age cohort after adjusting for the effects of sex, race, and branch of service

TABLE E-18

## EXPECTED NUMBER OF PROMOTIONS IN FIRST YEAR

Sample Mean = 1.61 (Promotions)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	917		1.56
18	2347		1.55
19	1368		1.59
20	693		1.69
21	457		1.68
22	339		1.77
23	217		1.65
24	148		1.77
25-35	349		1.71
Sex			
MALE	5359	1.64	
FEMALE	1476	1.50	
Race			
WHITE	4921	1.61	
BLACK	1462	1.61	
HISPANIC	452	1.55	
Service			
ARMY	2714	1.68	
NAVY	1621	1.49	
AIR FORCE	1808	1.58	
MARINES	692	1.69	

TABLE E-19  
REENLISTMENT INTENTION

Sample Mean = 70 (% Positive Responses)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1167		73
18	3095		68
19	1725		66
20	873		68
21	565		74
22	422		72
23	282		76
24	198		77
25-35	439		80
Sex			
MALE	6706	69	
FEMALE	2060	73	
Race			
WHITE	6221	69	
BLACK	1964	74	
HISPANIC	581	72	
Service			
ARMY	3561	70	
NAVY	1958	67	
AIR FORCE	2210	73	
MARINES	1037	70	

TABLE E-20  
EXPECTED ACTIVE MILITARY SERVICE

Sample Mean = 8.42 (Years)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	1191		8.85
18	3138		8.17
19	1753		7.85
20	890		8.04
21	575		8.63
22	425		8.85
23	284		9.85
24	203		9.40
25-35	449		10.00
Sex			
MALE	6818	8.49	
FEMALE	2090	8.19	
Race			
WHITE	6312	9.06	
BLACK	1996	6.82	
HISPANIC	600	7.08	
Service			
ARMY	3620	7.10	
NAVY	1996	8.83	
AIR FORCE	2235	10.39	
MARINES	1057	8.03	

TABLE E-21

## EXPECTED SATISFACTION WITH MILITARY LIFE

Sample Mean = 3.90 (Level of Satisfaction\*)

Variables	Sample Size	Unadjusted Mean	Adjusted Mean
ENTRY AGE			
17	2331		3.79
18	6011		3.91
19	3282		3.91
20	1740		3.80
21	1049		3.98
22	791		3.96
23	557		3.99
24	402		3.99
25-35	805		4.04
Sex			
MALE	13084	3.87	
FEMALE	3884	3.99	
Race			
WHITE	12232	3.89	
BLACK	3618	3.92	
HISPANIC	1118	3.97	
Service			
ARMY	6813	3.87	
NAVY	3819	3.91	
AIR FORCE	4366	3.90	
MARINES	1970	3.97	

\* 7 = Very Satisfied; 1 = Very Dissatisfied



#### LIST OF REFERENCES

1. Thomas, George, The Feasibility of Modelling the Supply of Older Age Accessions, Unpublished Report, Naval Postgraduate School, September 1982.
2. Kreutner, Steve M., Social, Economic, and Behavioral Differences Among Enlisted Personnel Based on Age at Service Entry, Master's Thesis, Naval Postgraduate School, 1982.
3. Doering, Zahava D., Grissmer, David W., and Morse, Jane S., 1979 DoD Survey of Personnel Entering Military Service: Wave 1 User's Manual and Codebook, Rand, 1980.
4. Doering, Zahava D., Grissmer, David W., and Morse, Jane S., 1979 DoD Survey of Personnel Entering Military Service: Wave 2 User's Manual and Codebook, Rand, 1980.
5. SPSS<sup>X</sup> User's Guide, McGraw-Hill, pp. 439-450, 1983.
6. United States General Accounting Office, FPCD 79-34, Needed--A More Complete Definition of a Quality First-Term Enlisted Person, p. 1, 25 April 1979.

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